EXHIBIT B

Alan C. Whitehouse, M.D.

In re: W.R. Grace & Co., Debtor

June 16, 2009

BUELL REALTIME REPORTING, LLC
THE NORTHWEST'S LEADING COURT REPORTING AND LEGAL VIDEOGRAPHY FIRM

Phone: 206 287 9066
Fax: 206 287 9832
Email: info@buellrealtime.com
Internet: www.buellrealtime.com

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE DISTRICT OF DELAWARE

In re:	)	Chapter 11
	)	
W.R. GRACE & CO., et al.,	)	No. 01-01139 (JKF)
	)	
Debtors.	)	

Videotaped Deposition Upon Oral Examination Of
ALAN C. WHITEHOUSE, M.D.

Taken at 17620 International Boulevard
Seattle, Washington

DATE TAKEN: June 16, 2009
REPORTED BY: CATHY ZAK, CCR# 1922

APPEARANCES

For LIBBY CLAIMANTS:
TOM L. LEWIS
LEWIS, SLOVAK & KOVACICH
P.O. Box 2325
Great Falls, Montana 59403
406.761.5595

For W.R. GRACE:
DAVID M. BERNICK
BRIAN STANSBURY
HEATHER A. BLOOM
KIRKLAND & ELLIS
655 15th Street NW
Washington, D.C. 20005
202.879.5969

For W.R. GRACE and OFFICIAL COMMITTEE OF ASBESTOS PERSONAL INJURY CLAIMANT:
NATHAN D. FINCH
CAPLIN & DRYSDALE
One Thomas Circle NW
Washington, D.C. 20005
202.862.7801

For MARYLAND CASUALTY and ZURICH:
EDWARD J. LONGOSZ
ECKERT SEAMANS
1747 Pennsylvania Avenue NW, 12th Floor
Washington, D.C. 20006
202.659.6619

For PROPERTY DAMAGE FUTURE CLAIMANTS' REPRESENTATIVE (via telephone):
ALAN B. RICH
Attorney at Law
1401 Elm Street, Suite 4620
Dallas, Texas 75202
214.744.5100

APPEARANCES (continuing)

For STATE OF MONTANA (via telephone):
SAMANTHA P. TRAVIS
CHRISTENSEN, MOORE, COCKRELL, CUMMINGS & AXELBERG
145 Commons Loop; Suite 200
P.O. Box 7370
Kalispell, Montana 59904
406.751.6010

For ARROWOOD INDEMNITY COMPANY (via telephone):
BRAD M. ELIAS
GARY SVIRSKY
O'MELVENY & MYERS
7 Times Square
New York, New York 10036
212.326.2248

For CONTINENTAL CASUALTY COMPANY and CONTINENTAL INSURANCE COMPANY (via telephone)
ELIZABETH M. DeCRISTOFARO
FORD MARRIN ESPOSITY WITMEYER & GLESER
Wall Street Plaza, 23rd Floor
New York, New York 10005
212.269.4900

For ALLSTATE (via telephone):
ANDREW K. CRAIG
CUYLER BURK
4 Century Drive
Parsippany, New Jersey 07054
973.734.3225

Also Present:
CECIL GRANT - Videographer
JEANNA RICKARDS

* * * * *

DEPOSITION OF ALAN C. WHITEHOUSE, M.D.

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***** (* Denotes phonetic spelling.)

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BE IT REMEMBERED that on Tuesday, June 16, 2009, at 17620 International Boulevard, Seattle, Washington, at 8:33 a.m., before CATHY M. ZAK, CCR, Notary Public in and for the State of Washington, appeared ALAN C. WHITEHOUSE, M.D., the witness herein;

WHEREUPON, the following proceedings were had, to wit:

<<<<<< >>>>>>

THE VIDEOGRAPHER: Good morning. We're now on the record. Today is June 16th, 2009, and the time is now 8:33 a.m. The location of today's deposition is 17620 International Boulevard, SeaTac, Washington 98188.

My name is Cecil Grant, video specialist representing Buell Realtime Reporting out of Seattle, Washington, for this cause number 01-1139 JKF in re W.R. Grace & Company, et al.

Today's deponent is Dr. Alan C. Whitehouse.

Would counsel please identify themselves and state whom you represent?

MR. FINCH: My name is Nathan Finch. I represent W.R. Grace and Official Committee of

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Asbestos Personal Injury Claimants. With me is my colleague Jeanna Rickards.

MR. LONGOSZ: My name Edward Longosz and I represent Maryland Casualty and Zurich.

MR. STANSBURY: Brian Stansbury, Kirkland & Ellis, and I represent W.R. Grace & Company.

MR. LEWIS: Tom Lewis. I represent the Libby claimants.

MS. BLOOM: Heather Bloom with Kirkland & Ellis and I represent W.R. Grace.

THE VIDEOGRAPHER: Counsel on the phone.

MR. FINCH: Hello? Is there any counsel on the telephone.

MR. ELIAS: Hello. This is Brad Elias from O'Melveny & Myers. We represent Arrowood Indemnity Company. I'm here with my colleague Gary Svirsky.

MS. TRAVIS: Hello. This is Samantha Travis representing the State of Montana.

MS. DeCRISTOFARO: Hello. This is Elizabeth DeCristofaro of Ford Marrin representing Continental Casualty Company and Continental Insurance Company.

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COURT REPORTER: I'm sorry. Could you repeat the name again? I can't hear you.

MS. DeCRISTOFARO: Sure. It's Elizabeth DeCristofaro. That's D-E-C-R-I-S-T-O-F-A-R-O.

MR. RICH: Alan Rich for the Property Damage Future Claimants' Representative.

THE VIDEOGRAPHER: Is that everyone on the phone?

MR. CRAIG: Hi. Andrew Craig, C-R-A-I-G, for Allstate Insurance.

THE VIDEOGRAPHER: The court reporter today is Cathy Zak with Buell Realtime Reporting.

Please swear in the witness and proceed with the deposition.

ALAN C. WHITEHOUSE, M.D., having been first duly sworn by the Notary, deposed and testified as follows:

EXAMINATION

BY MR. FINCH:

Q Dr. Whitehouse, as you heard before, my name

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is Nate Finch and I represent the Grace ACC or Official Committee of Asbestos Personal Injury Claimants.

Are you taking any medications that would preclude your ability to understand questions or remember things?

A No.

Q Is there any reason as you sit here today you can think of why you wouldn't be able to understand and remember things as well today as you normally do?

A No. I do wear hearing aids and people need to talk up.

Q Okay. I'll do that. If you don't understand one of my questions, can you please let me know and I'll attempt to rephrase it and make it more clear?

A I will.

MR. FINCH: Madam Court Reporter, can we mark this as Whitehouse Exhibit-1?

(Exhibit-1 marked for identification.)

Q (By Mr. Finch) Dr. Whitehouse, do you have Whitehouse Deposition Exhibit-1 in front of you?

A I do.

Q Could you just verify that this is your May 2009 expert witness report in the Grace bankruptcy

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case with the attachments except that I haven't included all of the CD ROMs? I've just not included those, but the rest of the attachments I believe we have collected and --

A It would appear that way.

Q Okay. Now, you have submitted in addition to this May 2009 report a report in December of 2008 and another report in March of 2009; is that correct?

A I believe so.

Q Is the May 2009 report that is Whitehouse Deposition Exhibit-1 -- as I read this, it looks like it appears to supplement and update and replace the March report and the December report?

A Yeah, basically it does. It just updates what's been done before.

Q Okay. So this report, Whitehouse Exhibit-1, the May 2009 report contains -- leaving aside your rebuttals to the other medical experts, but this contains your opinions and conclusions you've been asked to testify about in the Grace case?

A Yes.

Q Do you understand what the purpose of an expert witness report is?

A Yes.

Q And what's your understanding of what the

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purpose of that expert witness report is?

A I guess the best way to put it is to put up front the opinions relative to the situation at hand.

Q To put forth the opinions you're going to give and the basis for those opinions; is that fair?

A That's correct.

Q Okay. I've read -- and you understand that this is a bankruptcy case where the Court is going to be asked to either approve or disapprove a plan of reorganization. Do you have that understanding?

A That's true.

Q And as I understand it, you have reviewed the medical and exposure criteria in what's called the Grace Trust Distribution Procedures, TDP?

A I have.

Q And you have some opinions about the Grace TDP? Can I call it the Grace TDP?

A I do.

Q Do you have opinions about the medical and -- well, you have some opinions about the Grace TDP that you have described at various places in your reports, correct?

A Correct.

Q I've read through all of your reports in this case and I didn't see any criticism of the

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mesothelioma medical exposure criteria; is that correct?

A Show me that paragraph again before I answer that question to be sure. Where's it located again?

Q Well, you talk about mesothelioma.

A Yeah, I don't think so, but I want to make sure.

Q You want to see the paragraph from the TDP?

A No, the paragraph in here relative to it.

Q Well, you talk about --

A And the paragraph in the TDP too.

MR. FINCH: Why don't we mark the TDP as Deposition Exhibit-2.

(Exhibit-2 marked for identification.)

Q (By Mr. Finch) And the reason, Dr. Whitehouse, I don't want to refer you to your reports is because I've read through all your reports and I didn't see anything in there that criticized the mesothelioma medical exposure criteria and the TDP.

A I don't know there is actually, but I want to -- I want to be sure.

(Mr. Bernick enters.)

Q (By Mr. Finch) Okay. Page 24 of the TDP.

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A No, I don't have any problems with it.
Q When you came in the room today, your counsel handed out this document.
MR. FINCH: Let's make this Whitehouse Exhibit-3.
(Exhibit-3 marked for identification.)
MR. LEWIS: Actually, Dr. Whitehouse --
A I have a copy of it already, so... (Pause.)
MR. BERNICK: Well, is there --
A I didn't bring this one with me.
Q (By Mr. Finch) Okay.
MR. LEWIS: And it was prepared by my co-counsel, Jon Heberling and his firm, so I don't want to mislead anybody on that.
Q (By Mr. Finch) Dr. Whitehouse, what is Whitehouse Deposition Exhibit-3?
A What is what?
Q What is Whitehouse Deposition Exhibit-3? What is this document?
A Oh, basically, I don't understand all the machinations that went into this except that in order to maintain confidentiality of patients that are not clients of these two attorneys and to not violate HIPAA rules, they were identified by number and by

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initials in here and this is basically the numbering of all their clients, plus all the other people that are involved in studies and things like that that are presented here like that paper and the mortality study.
So it totals about 1,030 numbers, of which a good number of are initials because they're confidential.
Q Okay. And on the first page of this separate cover page, there's a column that says Libby Claimant --
A Yes.
Q -- do you see that?
So if it says yes, that means there's somebody that sued or would otherwise sue W.R. Grace there because they filed a lawsuit?
A That's correct and then if you'll notice, the ones that say Libby Claimant, no, they're usually -- there should be initials by those.
Q Okay. And those --
A I actually haven't seen this much myself, but that's what I understand.
Q Okay. The people that are nos are people who were not the clients of either Mr. Heberling's law firm or Mr. Lewis' law firm, right?

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A Right.
Q Okay. And as I read this, it looks like there's 1,030 people listed on this chart; is that right?
A I understand that, mm-hm.
Q Now, this doesn't -- these are the people that -- this doesn't include all 1,800 patients with asbestos-related disease that have been seen by the CARD Clinic, does it?
A No.
Q So you haven't -- or people have not produced the medical records for about 800 of the 1,800 people; is that correct?
A As far as I know. I -- I've really not been privy to all that's gone on with that.
Q Okay. Could you turn in your expert report, Whitehouse Deposition Exhibit-1, on Page 1? The bottom of Page 1, you write, I am in a position to compare asbestos disease from Libby asbestos to asbestos disease from chrysotile asbestos.
Do you see that?
A Yes.
Q What do you mean by asbestos disease from Libby asbestos?
A Well, I've seen a large number of people from

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Libby with various forms of asbestos disease due to what we call Libby asbestos, but I also in my practice have been involved in seeing a large number of people with predominantly chrysotile disease, basically commercial chrysotile disease from Hanford and Wallula Paper Mill and a beet factory in Moses Lake and the shipyards in western Washington, a lot of them sent to me by State of Washington for evaluation of their disease, and then a lot of them that I followed over a period of years.
Q What do you mean in your report and opinions by Libby asbestos?
A Well, basically what's happened is that when Libby -- or when the asbestos problems in Libby were originally defined, the fiber itself was characterized not as tremolite, which is what it -- a term that it had been used for for years. It was then defined as winchite, richterite, with some degree of tremolite, and was a different -- different compound and in order to not have a mouthful of words, everybody has been calling it Libby asbestos since that time.
Q Okay. So for purposes of your definition, Libby asbestos refers to the mix of winchite, richterite, and tremolite that is a contaminant in

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the vermiculite or that was mined at Libby Mountain in Montana?

A Yeah, basically.

Q Okay. Do you have some kind of position with the CARD Clinic?

A I'm a pulmonary consultant to the CARD Clinic. I go up there on a fairly regular basis. I have been for a number of years.

Q Are you paid a salary at all by the CARD Clinic?

A I am.

Q What's that salary?

A It basically is $1,000 a day when I'm there.

Q And I noticed in your expert report that you say that your hourly rate is $350 an hour. What do you charge $350 an hour to do?

A Depositions.

Q Did you charge for your time in preparing the expert report?

A I do.

Q Did you charge for your time in either testimony before workers compensation boards or other kind of courtroom testimony in addition to deposition testimony?

A I do.

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Q Approximately how much money have you made over the past five years as a result of being asked to give expert reports or testimony on matters relating to Libby asbestos?

A Well, there's also the Department of Justice that had paid me as well, which you probably know as well. I guess probably over $100,000, but I'm not sure I know the exact amount. I've never added it up.

MR. FINCH: Why don't we mark this as the next exhibit.

Q (By Mr. Finch) Are you aware that the CARD Clinic maintains a Web site?

A Yes.

(Exhibit-4 marked for identification.)

Q (By Mr. Finch) Did you have any -- who -- did you have any role in reviewing the information put on the Web site?

A No, and I have no idea what's on it now.

Q Would you expect that things that the CARD Clinic would say about Libby asbestos disease and asbestos disease in general on their Web site to be truthful and accurate?

A Yeah, I can't -- I can't answer that question. I have not looked at the Web site since the first draft, and the thing's came out probably over five, six years ago. I haven't even looked at it since then.

Q Okay. Would you turn to what's been marked as Whitehouse Deposition Exhibit-4, and this is what -- I'll represent to you this is what I printed out from the CARD Clinic Web site a couple of weeks ago. There's a section that says, frequently asked questions. Do you see that?

A What page are --

Q Oh, the front page.

A Right here?

Q If you skip past all of the -- and what I have done -- because when I printed this out, it cut off the columns on the right-hand side. I had my secretary go and cut and paste all the words into the document behind it so that you can see -- for example, if you go about seven pages back, you see where the text type changes? All we've done is we've taken the text that -- as it appears --

A Oh, I see what you've done.

Q -- on the Web page so you can see the whole sentence wrap around as opposed to being cut off. Do you see that?

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MR. LEWIS: Are you representing that this is accurate --

MR. FINCH: Yes.

MR. LEWIS: -- an accurate reproduction?

MR. FINCH: Yes.

MR. LEWIS: Thank you.

MR. FINCH: It's an accurate reproduction of what's on the Web site.

A I see it.

Q (By Mr. Finch) All right. Can you go to the -- can I see your copy, Dr. Whitehouse, just for a second?

A Sure. (Document passed.)

Q All right. I've put a tab on the page I want you to turn to.

A Okay.

MR. LEWIS: Let me see that.

THE WITNESS: (Document passed.)

Q (By Mr. Finch) Do you see that the title of that says, Libby Amphibole Asbestos Exposure in Libby, Montana?

A Yes.

Q The one, two, three, fourth -- fifth paragraph down -- and I'm going to read from the

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typewritten version of this as opposed to the printout version because it's -- you can see all the words better, but it says, Zonolite and Monocote are two trade names under which Libby vermiculite products were marketed. There are two overwhelming examples of the extent to which exposure can spread through commercial products.

And then it talks about vermiculite -- Zonolite attic insulation and Monocote spray-on fire -- fire proofing. Do you see that?

A I do.

Q Did you -- do you have the understanding that Libby asbestos was a contaminant in both Monocote spray-on fire proofing and Zonolite attic insulation?

A That's my understanding.

Q Did you also understand that it was in -- a contaminant in many of Grace's other commercial construction products as well?

A Yeah, although I don't know the exact extent of them.

Q Okay. So to the extent that it is -- let me back up.

You're of the view that asbestos Libby (sic) from Libby asbestos causes pleural disease that's more severe than seen in cohorts of people who were

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exposed to asbestos that is not Libby asbestos?

A Both in degree and in amount for a number of patient -- people that were exposed to it, yes.

Q Let me back up.

What do you mean by degree?

A It's very hard to quantitate to what degree because you can find examples of people with exposure that have severe pleural disease, but the frequency of people with severe pleural disease and the frequency of death from severe pleural disease appears to be significantly worse with Libby asbestos.

Q With Libby asbestos.

Now, mesothelioma is a disease caused by exposure to asbestos, right?

A Yes.

Q Would you agree with me that the prognosis for someone who develops mesothelioma as a result of being exposed to pure chrysotile asbestos is no different than the prognosis for someone who was exposed to Libby asbestos?

A Well, they're all going to die from it.

Q So would you agree with me that at least for mesothelioma, mesothelioma caused by Libby asbestos isn't more severe or more fatal than mesothelioma

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caused by chrysotile asbestos?

A No, I would agree with that.

Q Okay. Would you also agree with me that the prognosis from someone who develops lung cancer as a result of exposure to Libby asbestos is no better or no worse than the prognosis of someone who develops lung cancer as a result of exposure to chrysotile asbestos?

A It's probably not any different, but it may depend, on an individual case, on the degree of underlying asbestos disease they have.

Q But generally speaking, if you get lung cancer, nine times out of ten you're going to die from lung cancer, right?

A I don't think that that has been our experience.

Q What's been your experience?

A Well, we do a lot screening for lung cancer and we found a significant number of small nodules that I'm reasonably certain we have cures from. I don't have the data as to what percentage of death from lung cancer in Libby we have, but it's, I think, less than nine out of ten.

Q Okay. Would you agree with me that the majority of people who get lung cancer die from lung

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cancer?

A Yes.

Q Okay. And that's the same whether they're exposed to Libby asbestos or chrysotile asbestos?

A Yes.

Q Okay. So to that extent, lung cancer isn't any more severe if you get it from being exposed to Libby asbestos than if you got exposed to it from chrysotile asbestos?

A Probably not.

Q Okay. What about gastrointestinal tract cancer? There's no difference in severity for those kinds of cancers if you were exposed to Libby asbestos as opposed to chrysotile asbestos?

A As far as I know.

Q Now, most of your opinions focus on pleural disease. Have you -- I didn't see anywhere in your report where you asserted or indicated that asbestosis -- and by asbestosis, I mean interstitial fibrosis of the parenchyma of the lung. Do you understand that definition of asbestos?

A I do.

Q Okay. I didn't see any assertion that asbestosis caused by Libby asbestos, that the prognosis for that person is any different than

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asbestosis caused by chrysotile asbestos.
A I think the school is still out on that.
Q Okay. So you don't -- sitting here today, you can't give an opinion that asbestosis caused by Libby asbestos is more severe or more likely to lead to death than asbestosis caused by chrysotile asbestos?
A I can't make that statement, no.
Q Okay. So really what you're talking about as being more severe asbestos disease from Libby asbestos as opposed to chrysotile asbestos is pleural disease, correct?
A The pleural disease and the things that are associated with pleural disease than Libby which does not necessarily exclude interstitial disease or subpleural interstitial disease.
Q Well, would you also agree with me -- let me back up, Doctor.
You know Dr. Art Frank, correct?
A I do.
Q Did you read his deposition in preparation for your deposition today?
A I did.
Q Did you -- did you see where I asked him the question of whether there was some kind of magical

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shield around Lincoln County, Montana, that would make exposure to Libby asbestos in Montana more likely to lead to disease or death as compared to exposure with Libby asbestos in New York City, for example?
A I don't have any evidence to, you know, really make any real comment on that because what I've studied has been strictly asbestos in Libby.
Q Okay. So you can't say, for example, that people who are exposed to Libby asbestos in Libby are any sicker or have a different severity of their pleural disease as compared to people who are exposed to Libby asbestos in Ohio at a vermiculite processing facility or in New York at a construction site, can you?
A No, except that I have seen about a half of a dozen patients over ten years from various expansion plants and other jobs, not only in Spokane, in California, Minnesota who had very severe disease.
Q They had very severe disease as a result of being exposed to the Libby asbestos?
A Yes.
Q And so would you agree with me then that the -- let me back up.
Mr. Lewis used a term when he said who he

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represented. He said he represents the Libby claimants. And I understood that to mean people who have filed a lawsuit or would have filed a lawsuit against W.R. Grace. Do you have that understanding?
A Yes.
Q Okay. But you're a doctor and you look at people who -- or a patient with asbestos disease, correct?
A That's correct.
Q And you treat people regardless of whether they're a claimant or not a claimant?
A Yeah. Most of the time when I see them, I don't even know whether they're a claimant or not.
Q Okay. And so would you agree with me that to the extent there is something different about the Libby asbestos that causes more severe pleural disease that would affect people who aren't Libby claimants, i.e., people who were exposed to Libby asbestos outside of Libby, Montana, just as it would affect people in Libby, Montana?
A I'd make that assumption, yes.
Q And have you read William Longo's* report in the Grace case?
A It's been quite a while since I read it.
Q He is -- he is not a medical doctor. He is a

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Ph.D. who has tested various Grace commercial construction products and is of the view or actually has confirmed that they, A, contain Libby asbestos -- a lot of them contain asbestos in the vermiculite fix that went in as filler to those products like Monocote. I take it you don't dispute or have any basis to challenge his conclusions about that?
MR. LEWIS: Object to the form of the question on the grounds that it's compound.
MR. FINCH: Let me rephrase.
MR. LEWIS: And it's unintelligible as stated.
Q (By Mr. Finch) Did you understand my question?
A Yeah, I understand your question, but, you know, I can't recall. That was a long report with, I mean, all kinds of permutations and combinations of times and compounds that he was obviously aware of and I wasn't, so I'm not sure I can really comment on it.
Q Okay. So you're just not in a position to comment on it one way --
A No.
Q -- or another?
And so if he were to come in and testify that

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Libby asbestos ended up in vermiculite that went into a broad range of Grace's asbestos containing products, you couldn't comment on that one way or another?

A No, I could comment on it that there's a significant risk to people that are exposed to that compound.

Q Okay. Let's go back to your report. Put aside, at least for now, the CARD Clinic Web page printout, and you have the TDP over there.

Okay. You see at paragraph 22 in your report?

A Paragraph 22?

Q Paragraph 22, Page 10.

A I do.

Q You're describing the impact on asbestos disease due to Libby asbestos exposure. Do you see that?

A Yes.

Q In that paragraph, you're talking about the progression of non-malignant disease; is that correct?

A That's correct.

Q Okay. At the last sentence, you write, At the end stage, the patient is bedridden, oxygen

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dependent, and generally the hypoxia will lead to organ malfunction and death.

Do you see that?

A Yes.

Q And just for purposes of the record, please define hypoxia.

A Hypoxia is a low -- low oxygen level beyond the lower limits of what is considered to be normal.

Q Now, when someone reaches the point -- would you agree with me that people that -- shortness of breath is a symptom. Someone comes -- a patient comes to you and says, I'm having problems breathing. That's a symptom that a patient describes to a doctor, correct?

A Correct.

Q Okay. Now, a doctor can do a variety of lung function tests to see how their lung function has been impacted and may be causing shortness of breath, correct?

A They don't usually start there though.

Q Where do they usually start?

A The physical history and physical exam.

Q Okay. So you do the physical history and the physical exam, and then at some point, you do a series of lung function tests, correct?

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A Correct.

Q Okay. And the lung function test that you normally do in someone who's an asbestos-exposed person would be what?

A Well, we do, routinely, spirometry before and after bronchodilator, lung volumes in a body plethysmograph and diffusion capacities.

Q Okay. Diffusion capacities is sometimes called DLCO?

A Never heard that used. D-L-C-O.

Q D-L-C-O.

And how do -- and would you agree with me that the patient's score on the various lung function tests that you administer provide an objective measurement as to how, if at all, their lung function has been affected or damaged, correct?

A It may.

Q It may.

So there could be people who genuinely and truthfully and honestly say, I'm experiencing shortness of breath, yet when you do a total lung capacity or forced vital capacity or DLCO, the lung function tests could be in -- you know, within the normal ranges, correct?

A Well, the problem that you describe is the

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fact that we don't know where they started from. You start with healthy people who have been hard working all their life, particularly people who've done physical labor. You may find normal values that are in the range of 140 percent of predicted, and so then you cannot always assume that somebody that has 100 percent of predicted that that's normal for them, that they may have lost 40 percent, but you have no way of knowing that, but that may correlate with their shortness of breath.

Q Okay. I understand that that's sometimes called the healthy worker phenomenon where the people that may be outliers in the sense that they started out at 120 percent of predicted or 140 percent of predicted, they can lose a significant amount of their lung function, but would still show up as, quote, normal on a spirometry test or a lung capacity test?

A They could, although I've never seen that term healthy worker used that way.

Q Okay. Let's say if you took somebody who was a subforeman, they may have super optimal lung capacity and that guy might be, say, 150 percent of predicted and lose 50 percent of his lung capacity and still show up as 100 percent of predicted as a

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normal population even though he's suffered lung function, correct?

A That's possible, although, you know, he's not going to be running four minute miles any more.

Q I rather suspected that.

But would you agree with me that the way the -- what does it mean to be -- to be above the lower limit of normal?

A Well, the problem -- I don't know if it's a problem with lung function tests, but lung function tests have to be -- they don't get interpreted in a vacuum meaning the nominal norms plus or minus two standard deviations, which is a range of 80 to 120 percent, there's at least twenty different sets of normal values out there that have been done over the years and --

Q You're speaking of the reference equation?

A Yeah, the reference equations and all, so, you know, the ones that I use and the ones that have been used for timing memorial for a lung function, probably the most commonly used ones, but there's always change in it, and so you have to interpret your pulmonary function studies in light of what you know about the patient and the problems and all that -- all the variety of stuff that goes into doing

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a diagnostic workup on somebody.

Q But you mentioned two standard deviations from normal. Do you understand that basically 95 percent of the people are going to fall between 80 percent of predicted and 120 percent of predicted?

A Yeah, I think that's what it is, yeah.

Q Okay. Would you agree with me that if someone dies from -- well, how does the non-malignant asbestos diseases caused by Libby asbestos lead to death? What does it do physiologically to the person that kills them?

A It leads to a number of things. It leads to progressive shortness of breath. Most of them seem to die of -- not most of them, but a large number of them die of severe loss of lung volume, so they wind up with vital capacities in the 30 to 40 percent range of predicted or they wind up with diffusion capacities down to 20 or 30 percent.

So they either -- for the most part, either die of hypoxia with carbon dioxide retention or they die of what's called a cor pulmonale which is heart failure due to pulmonary hypertension disease within their asbestos disease.

Q But would you agree with me that the majority of people who die from a non-malignant disease caused

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by exposure to asbestos, at the end stage, they will have lung function test scores that are significantly below the lower limits of normal, at least on one of the three tests you mentioned?

A Well, most of the time. There have been rare examples of people that will have only modest degrees of loss of lung function and develop severe hypoxia associated with that because hypoxia does not directly correlate with the lung function test.

Q Meaning you can be -- you can still for whatever reason be able to get more oxygen in through your blood even if you have decreased lung function and, conversely, you can have not so significant lung function decline, but less oxygen in your blood?

A Right.

Q But for the majority of people who die from Libby -- you did something called the CARD mortality study, correct?

A Yes.

Q And I think the numbers are right here. Basically, you determined out of 186 people who had died who had at one time been diagnosed with an asbestos-related disease, that 110 of them, their death was caused in whole or in part by exposure to Libby asbestos; is that right?

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A Well, there was 110 of them that died either with lung cancer that was related to that or with pleural or interstitial disease. Asbestos disease was non-malignant.

Q Right. The 110 include people who died of cancer, right?

A It did.

Q Okay. And my understanding is of the 110, 76 of them died from -- and by that, I'll use quotes -- died from a non-malignant disease as opposed to a cancer?

A That's correct.

Q Okay. Of the 76 people who died from a non-malignant disease, would you agree with me that the majority of them by the end stage, but a few days before they died, if you measured their lung function, it would be well below 60 percent of predicted?

A Which numbers are you talking about?

Q Total lung capacity, forced vital capacity or DLCO.

A Yeah, well, I think that's probably right because we had almost 50 percent of them that had DLCO as their isolated abnormality and they may have had minor degrees of lung -- volume loss, but they

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had a very severe defusion defect.
Q Could you pick up the TDP which is an exhibit to your deposition? I'm not sure what number it is.
MR. LEWIS: Two.
Q (By Mr. Finch) Number two. I have reviewed your reports and your criticisms of the TDP. I didn't see any criticisms of the amounts of money that are scheduled to be paid on expedited review to people that qualify for various levels of disease; is that correct?
MR. LEWIS: Object. That's beyond his expertise. We're not talking about that question to this witness.
MR. FINCH: Well, let me just establish that.
Q (By Mr. Finch) You don't have any expertise in the dollar amounts that asbestos bankruptcy trusts pay to resolve asbestos personal injury claims, do you?
A No, they just -- they seemed a little bit paltry to me, but I'm not -- I'm not an expert in that.
Q Okay. And you're not an expert in what kind of values Grace paid when it was a defendant in the tort system, both to people in Libby and people

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elsewhere? You're not offering any opinions about that?
A As to how much they have paid?
Q Yes.
A I have a few numbers in my head from prior trials, but that's all. That's not enough to draw any long-term conclusions probably.
Q Okay. And so what -- as I understand it, what you focused on was the medical and exposure criteria for certain of the diseases in the TDP, correct?
A Yeah, I try to stick with things that I know.
Q Okay. And I read all of your reports and I didn't see in any of your reports in the Grace bankruptcy case any criticism of the exposure requirements, is that correct, for Libby claimants, at least?
A No, actually, it probably isn't dealt with in there, although that six-month criteria in there I think is subject to knowing what I know to a fair amount of criticism and mainly because of people that have vacationed there for a few weeks or so and then wound up with severe asbestos with interstitial lung disease. In fact, I've got one particular patient that does have that.

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Q But you haven't -- you know, understand that the purpose of the report though is to lay out your criticisms so I can ask you the basis for them. You haven't anywhere in your report, as I read them, criticized the exposure criteria in the TDP.
A The exposure criteria as far as time or the extent of exposure?
Q Either or.
A Or level of exposure?
Q Either one.
A Well, the level of exposures are not well known. And we know that the miners had a lot exposure, but we don't know the level of exposure that is required to get significant pleural disease. We think it's pretty small, but we don't -- we don't have exact numbers on any of that.
Q But my question is a little bit more technical than that.
You just haven't -- I didn't see anywhere in any of your reports you writing down and saying, I am criticizing the definition of Grace's exposure or in the six months requirement in the TDP.
A No, I have not and I think that that's better left to people that are -- that know a lot about exposure and things like that about asbestos levels

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and all.
Q Okay. Now, the TDP was not drafted by you, obviously, correct?
A No.
Q Have you ever drafted trust distribution procedures for any kind of a bankruptcy trust?
A No, and I don't want to.
Q Would you agree with me that it's not purely a medical document?
A I'm not sure I could even answer that. I know it's designed as a way to distribute money to people who are injured, but I'm not sure what I would actually call it.
Q Well, it has -- do you understand that the medical and exposure criteria are presumptive criteria so that if someone satisfies them, the trust will offer them a settlement in the values in the grid? Do you understand that?
MR. LEWIS: I'm going to -- I'm going to object to this on the grounds that this witness is not qualified to answer the question, and based on his prior testimony, there's no foundation for -- to ask the question.
Q (By Mr. Finch) You can answer.
A Repeat the question for me.

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Q I'll reask it.
Do you understand that the medical and exposure criteria in the TDP are set so that if people meet them for -- let's pick any of the particular disease levels -- if they meet them for that disease, the trust will offer them a settlement in the amount of money shown in the schedule values? Do you have that understanding that's how the thing works?
MR. LEWIS: Object on the prior basis and also on the grounds that it's compound.
A Well, I assume so, but I'm not sure I know enough to know how it actually works when it comes right down to it. Who gets paid what for how much or what the pitfalls are in it or things like that. I know some of the pitfalls, but I don't know all of them.
Q (By Mr. Finch) Okay. You don't have any expertise in evaluating asbestos personal injury claims for purposes of whether or not you should settle them or not, do you?
A You mean from a legal standpoint?
Q Yes.
A No.
Q Do you have any understanding as to what

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happens with someone who has, let's say, a non-malignant disease that the TDP would call asbestos pleural disease level three and they submit a claim to the trust and they qualify, if they later get sicker and their lung function test scores decline further from what they were at the time they settled with the trust, whether or not they can come back and make a new claim for the trust and get more money?
A I do not know the answer to that.
Q Okay. One of your opinions, as I understand it, about how Libby -- a non-malignant asbestos disease caused by exposure to Libby asbestos, how that is different than non-malignant asbestos disease caused by exposure to, let's say, chrysotile asbestos is that the pleural disease is more progressive. You've written those words?
A Yes.
Q What do you mean by more progressive?
A There are good documentation now that we have watched the disease progress far more rapidly, and particularly when I compare it with my past experience than what's described or what's actually described in the literature, cases in which there's been progression from fairly modest disease to death

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within short periods of time, several years. I think that's sort of the gist of it, and that happens frequently.
Q And by progression, do you mean a decline in lung function?
A Well, not necessarily. It may be a decline in lung function. It may be a significant change in the chest x-ray.
We have one of the largest data banks of CT -- HRCTs, high resolution CAT scans on asbestos patients anywhere. We have CTs on practically everybody. We have multiple CTs. So we have that data, so we can measure what's actually happened in various parts of the lung.
And so when I say that we're seeing progression in a lot of people, we are. And why some do and some don't, I have no idea.
Q Okay. You did a paper in 2004 where you tracked the progression of decline in lung function test scores for 123 of your patients, correct?
A Yes.
Q Okay. Have you -- there are approximately 1,800 people that have been diagnosed with asbestos disease in the CARD Clinic as a result of being exposed to Libby asbestos?

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A Yes.
Q I haven't seen anywhere in your reports or in the medical literature an analysis of if you took all of those 1,800 people and tracked their lung function over time what, if any, decline you would see; is that correct?
A No, I haven't, and several reasons for that. First off, I did -- as you know, have a database for a while that was basically tracking the same sort of thing as in that paper.
Q That was a database of 550 people?
A Or whatever it was. I don't know. It's been called that by you guys. I don't think there was 550. I don't remember. Stopped using it because it was so sporadic. When I started working up at Libby eight days a month in 2004, closed my office, it sort of became irrelevant because we had a new database up there and it got to -- when I was in my office, then I would track them all because they were almost all down in my office, not all of them, but most of them, but then it just got so sporadic, so we didn't follow it anymore.
I have not -- we do not have a database that is adequate at this point at Libby to track that 18- -- the whole 1,800. And as you can imagine, a

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lot of it's bogged down in bureaucracy and grant things that we have no control over.

Q So to the extent that you have opinions that pleural disease caused by exposure to Libby asbestos is more -- leads to a more rapid decline in lung function than pleural disease caused by exposure to other types of asbestos, is it fair to say that's primarily based upon the 2004 paper you wrote?

A No, not entirely. I think, to explain that statement, first off, is we have a preponderance of pleural disease. My experience in looking at people from Hanford is that I really only had a couple of deaths in all of the years that I was doing that of Hanford workers and it was all from severe interstitial disease. There just -- there wasn't that much significant pleural disease, whereas, in Libby there's a tremendous amount of pleural disease.

And so you would expect, I think, the extent of it, that there would be people who will progress and die of that disease.

I have numbers from the mortality study which is only patients in CARD that died, so we had -- have good data on it. There's a lot of other ones that have died of pleural disease prior to that time, but there has not been a definitive study on the whole --

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of all the claimants of Mr. Lewis and Mr. Heberling's that that's been done. Probably at some point in time, it will get done.

Q Okay. Have you done anything to analyze the differences in either the type of disease that people have or how severe it is as compared between Mr. Heberling's and Mr. Lewis' clients and the 850 people who aren't -- who have Libby asbestos disease who aren't their clients to see if there are any differences between those two groups?

A No, we haven't done a formal study of that.

Q Do you have any expertise or knowledge as to whether there are qualitative differences between asbestos disease patients who decide to pursue a lawsuit as compared to asbestos disease patients who don't in terms of their disease severity?

A I can't answer that question. I know that there was a whole flurry of lawsuits very early on in this process, but whether or not there was more than there would have been in the rest of the community or not, I don't know.

Q So you can't say whether the 950 people who are clients of Mr. Heberling or Mr. Lewis are different in significant ways from the 800 people who have Libby asbestos disease or not?

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A I'm not in a position to make that -- any judgments on that. I do think that there are 950 claimants that they have who I know -- probably do know better because I've seen them more times are likely to follow the same path as the 110 that were in that mortality study.

Q That's your -- let me back up.

On paragraph 27 of your report, Page 13, you write, An overwhelming majority in the Libby cohort have not only pleural plaques, but also diffuse pleural thickening, a more serious form of pleural disease.

Do you see that?

A Yes.

Q Would you agree with me that diffuse pleural thickening is a disease process that has been described in the medical literature for at least thirty years?

A That's probably for thirty years, yeah, most of the stuff that I've read has been since the '80s. Well, 1980s. That's thirty years, isn't it?

Q 1980 is almost thirty years ago, unfortunately.

A That's what happens as you get older.

Q So diffuse pleural thickening as a disease, a

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type of asbestos-related non-malignant disease is not something that exists only as a result of being exposed to Libby asbestos, correct?

A No, that's correct.

Q And you on Page 29 --

A Page 29 or paragraph 29?

Q Excuse me. Paragraph 29.

A Yes.

Q You're citing to something called the Rosenstock text?

A Yes.

Q What is the Rosenstock text?

A That's a textbook by a lady in -- who's a research physician at the University of Washington and she's still there.

Q Do you know what, if any, role Dr. Laura Welch* had in working on or editing that medical textbook?

A I do not.

Q The Rosenstock -- you cite the Rosenstock text for the proposition, In contrast to the mild effect of plaques on lung function, diffuse pleural thickening may result in more significant restrictive respiratory impairment.

I take it you agree with that statement?

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A Yeah, that's a fair statement.
Q Okay. By plaques, I assume that you're talking about pleural plaques?
A Yes.
Q Okay. Would you agree with me that -- well, how would -- would you agree with me that pleural plaques by -- well, let me get some definitions.
What is your understanding of the term pleural plaque?
A Well, the pleural plaque is originally and currently, I guess, defined as -- or defined as an area of scarring and fibrosis generally on the parietal pleural with demarcated edges, and it doesn't really define the size of it very much, although for practical standpoints, most of them are four or five centimeters in diameter at the largest for the most part.
Q And would you agree with me that -- and I guess the Rosenstock text states this -- is that generally speaking pleural plaques only have a mild effect, if any, on lung function?
A You have to define pleural plaques under those terms as isolated non-confluent pleural plaques.
Q Would you agree with me that pleural plaques

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have been defined in the medical literature for at least thirty years as well?
A Yes, they have.
MR. FINCH: Okay. We have been going a little over an hour. I don't know about you, but I like to try and take a short break at least once an hour. Would this be a good time? I think this is a good time for me to break. Would you like to take a break?
THE WITNESS: Sure, whatever you want.
MR. FINCH: Okay. Why don't we take a five- or ten-minute break?
THE VIDEOGRAPHER: We're going off the record. The time is now 9:32 a.m.
(Recess.)
(Ms. Bloom exits.)
THE VIDEOGRAPHER: We're back on the record. The time is now 9:43 a.m.
(Exhibit-5 marked for identification.)
EXAMINATION (Continuing)
BY MR. FINCH:
Q Dr. Whitehouse, do you have the Whitehouse Deposition Exhibit-5 in front of you?
A The what?

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Q The Whitehouse Deposition Exhibit-5 in front of you.
A Oh, yes, I do.
Q And do you recognize that document, sir?
A I do.
Q What is Whitehouse-5?
A That's the ATS. I think this is the -- is this the '04 statement?
Q Yes.
A I assume it is, yes.
Q Okay. This is the American Thoracic Society Diagnosis and Initial Management of Non-Malignant Diseases Related to the Asbestos. Do you see that?
A That's correct.
Q Do you regard these guidelines for the diagnosis and management of non-malignant diseases to be authoritative?
A Yes.
Q Do you rely on them when you're diagnosing people with asbestos-related disease?
A Yes, I actually follow what they do, what they say.
Q Would you agree with me that this document uses the word diseases, plural, in the title?
A Yes.

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Q So it talks about different diseases caused -- different non-malignant diseases caused by exposure to asbestos, correct?
A Yes.
Q Would you also agree with me that the 2004 ATS statement on non-malignant asbestos-related diseases doesn't provide any guidance for how you would divide a non-malignant disease by severity as it relates to lung function decline?
A I'm not sure I understand your question.
Q Yeah, it was a crummy question. Let me rephrase it.
You would agree with me that demonstration of functional impairment as shown by either spirometry or total lung capacity or DLCO is not a requirement to diagnose somebody with a non-malignant asbestos-related disease, correct?
A That's true.
Q So you can have asbestosis or pleural disease and have completely normal lung function tests, correct?
A That's true.
Q And so the 2004 ATS statement, whatever else it does, it doesn't give you any guidance as to how you would characterize someone as having -- for

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purposes of lung function decline perspective, whether they have severe asbestosis or severe pleural disease, it doesn't speak to that, does it?
A No.
Q It doesn't give you any tests or ranges for lung function test scores to say this person is mildly impaired, this person is severely impaired, or this person is not impaired at all, correct?
A No, I don't think it does.
Q Okay. There's something called the AM -- American Medical Association Guides for the Evaluation of Permanent Impairment. Are you familiar with those?
A Yes.
Q I think that you recently put out a sixth edition, but you cite to the fifth edition in your paper?
A Mm-hm. (Answers affirmatively.)
Q And you rely on that as one basis for dividing disease by severity as it relates to lung function loss?
A I rely on that only insofar as I'm required to for disability evaluations for the State of Montana.
Q Okay.

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A Other than that, I do not.
Q Do you understand that the TDP divides the non-malignant -- the Grace TDP divides the non-malignant diseases by severity in terms of the decline in lung function test scores?
A Yes.
Q Okay. So there's a low level criteria where it doesn't require any kind of lung function decline at all, correct?
A Right.
Q And that would be category one or category two, correct?
A And I'd have to look up all the categories again because there's As and Bs and --
Q Why don't --
A -- things like that, but, yes, take your word for it.
Q The 2004 ATS statement, if you could turn in there to Page 697.
A Okay.
Q The second full paragraph on Page 697 refers to something called HRCT. Do you see that?
A Second on which side?
Q On 697.
A Yeah.

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Q Second full paragraph begins, HRCT and detect early --
A Okay.
Q -- pleural thickening.
A I got it.
Q Do you see that?
A Yes.
Q HRCT refers to high resolution CAT scans --
A Yes.
Q -- computed tomography?
A Yes.
Q Okay. And then later on in the same column in the next paragraph, the 2004 ATS statement authors write, A proposal has been put forward for a classification system analogous to that of the ILO system for plain chest radiographs, but none has been widely adopted.
Do you see that?
A Yes.
Q This document was published in 2004. To your knowledge, has there -- well, let me back up.
What's your understanding of what's the ILO system for plain crest radiographs?
A Well, the ILO system is an epidemiologic study or was designed as an epidemiologic study for

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classification in both interstitial and pleural disease with a variety of diseases originally starting in pneumoconiosis and black lung and coal miner's lung and then has been extrapolated as asbestos disease subsequent to that.
Q Okay. And is it -- it is a -- it is a grading system for dividing chest radiographs for pneumoconiosis caused by exposure to asbestos and various categories, correct?
A Correct.
Q It's one of the things that it does?
A Yes.
Q And have you ever in your clinical practice or otherwise used the ILO system in describing a chest x-ray, what a chest x-ray shows to another doctor?
A Well, yes, I -- actually, the part of the ILO system that relates to interstitial lung disease, I pretty much agree with. That's the 1/0, 1/1, 2/1, et cetera, et cetera of interstitial disease. There's far more difficulty with the pleural disease, particularly as far as what people see and how they read it and things like that.
Q Okay. Would you agree with me that in reading chest x-rays generally, two people who are

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equally qualified and competent at reviewing x-rays can come to different conclusions as to whether or not the -- what the profusion level is on the ILO scale for purposes of interstitial disease?

A Yes, they can.

Q That's a phenomenon called interreader variability?

A True.

Q And would you also agree with me that same phenomenon, i.e., two doctors looking at the same x-ray that shows pleural disease can with the best will in the world come to different conclusions about what that x-ray shows?

A Yes.

Q But the -- do you have an understanding of how the ILO guidelines are promulgated?

A You mean originally or --

Q Well, originally and then -- let's back up. They were originally put out in 1980, correct?

A Yeah.

Q All right. Do you have an understanding of how they came into existence?

A Oh, a bit, not a lot. They came in -- I'm not sure that I do know. I think they came about

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because of trying to use it as a goal for disability for coal miners was the original which is why (inaudible), West Virginia, and I suspect that's -- I think that's how it originally started. I'm not absolutely certain of all that.

Q And one of the goals was that it was to create sort of a unified system of rules for how you can describe chest x-rays to another doctor in a way that's shorthand as opposed to both of you having to look at the film, correct?

A Yes, I guess -- I guess that was the original reason. I don't know the -- that one in particular, I'm not sure whether that was an original goal or not.

Q Okay. And what is your understanding of how the -- and the ILO was revised in about the year 2000, correct?

A Yes.

Q It became publically available sometime after that?

A It became what?

Q Publically available. The ILO guidelines from the year 2000 became publically available sometime after the year 2000, right?

A Well, I know they're publically available.

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Were they not before that?

Q At some point in the year 2000, the ILO guidelines were revised, correct?

A Yes.

Q Did you have any role in revising those guidelines?

A Not at all.

Q Do you have an understanding as to who the people were that made the revisions to those guidelines?

A Not all of them, no.

Q Do you understand that at least some of the people involved were experts in asbestos-related medical issues?

A Oh, I believe they were, yes.

Q You wouldn't say that the -- if a doctor were to rely on the ILO guidelines for purposes of defining pleural disease that that doctor is outside the medical mainstream, would you?

A Well, probably not, although there are -- becoming evident with time more discrepancies relative to that particularly when you review the literature. There are -- well, there's exceptions to everything as you can imagine.

Q But you wouldn't say, for example, if a

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doctor was asked to give an opinion about whether or not someone had pleural thickening versus pleural plaque, that doctor relied on the definition of pleural thickening in the ILO -- 2000 ILO guidelines that he or she was operating completely out of the bounds of mainstream medical science?

A They would be operating with what's written in the ILO guidelines.

Q And that would be acceptable medical practice, correct?

A That's a whole other issue because there's significant differences between what the ILO guidelines are and certain diffuse pleural thickening and confluent plaques and things like that that are at issue with the problems of these people that died with Libby asbestos.

Q But I understand that you have some criticisms of the way the 2000 ILO guidelines defined pleural thickening versus pleural plaque, I take it?

A Yes.

Q But you wouldn't say that a doctor who relied on the 2000 ILO guidelines for purposes of deciding whether someone had pleural plaques or pleural thickening was being completely arbitrary and not following accepted medical science?

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A Those are two different parts of the question. I think you should separate them.
Q Okay. Would you say that someone who relies on the 2000 ILO guidelines is not following accepted medical practice if they follow those definitions for purposes of trying to determine -- give an opinion about whether someone has diffuse pleural thickening or pleural plaques?
A No, they would be following the guidelines.
Q And that would be acceptable medical practice to do so?
A I think there's very large exceptions in that relative to Libby asbestos and there's also a fair number or significant amount of exceptions to that in the medical literature, particularly McCloud, and we're talking -- we're talking about blunting and diffuse pleural thickening, so we might as well cut to the -- cut to the meat of this.
Q Sure.
A And McCloud only found, I think, 45 percent of the people had blunting with diffuse pleural thickening. I think there's one other where I can't remember the name of who wrote it in a similar vain. It also wrote that everybody that had diffuse pleural thickening had a prior pleural effusion and there's

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evidence in the literature that that -- there are more than one view of that, and for whatever reasons and I obviously wasn't privy to any of those discussions, they selected that piece of information as opposed to McCloud's article which very well details the incidence of blunting associated with diffuse pleural thickening.
And that amazingly correlates almost exactly with what we have in Libby in these people who died.
MR. BERNICK: I'm sorry. Your voice trailed off a little bit, Dr. Whitehouse. What corresponded almost identically with the --
THE WITNESS: Oh, the McCloud numbers correlate almost exactly with the Libby numbers for the incidents of blunting as a criteria for diffuse pleural thickening. We have all these people with diffuse pleural thickening that don't have blunting.
Q (By Mr. Finch) Okay. Mr. Bernick probably has lots of questions about diffuse pleural thickening and blunting, but I'm just asking you in general --
MR. BERNICK: Don't count on it.
Q (By Mr. Finch) In general, if someone followed the ILO guidelines requirement for saying that blunting would be required to define something

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as diffuse pleural thickening, that person would not be outside of the bounds of generally accepted medical practice, correct?
A Probably not.
Q Now, before we got into the discussion of blunting, there -- I'm still at the 2004 ATS statement. The statement says, A proposal has been put forward for a classification system analogous to that of the ILO system for plain chest radiographs, but none has been widely adopted.
Do you see that language?
A Yeah.
Q And what they're referring to is a proposal has been put forward for a way to grade HRCT in a way that is descriptive much like the ILO system is descriptive for chest x-rays, correct?
A Correct.
Q Okay. And this statement was put out -- well, the date on it is December 12, 2003, but that's almost six years ago.
To your knowledge, has there been a widely adopted way to classify high resolution CAT scans of the chest that is similar to the ILO system for x-rays?
A It hasn't been widely adopted.

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Q Okay.
A There is -- we actually -- other people in the CARD clinic are actually working on this and trying to develop something that is simple because the one that's out there takes over an hour to do a CT, and if you think about that, you can read a CT in about five or ten minutes and then you take an hour and -- it isn't going to happen.
Q Nobody would use it?
A Nobody will use it, no.
Q Well --
A That's exactly what's happened.
Q Okay. So, I mean, my understanding of the ILO -- the way the ILO system works is it's a big box with sample films in it that you can compare 1/1 versus whatever x-ray you're looking at to see how those two things line up. Is that basically how it works?
A Supposedly.
Q Okay. Supposedly and theoretically, that's how it works, right?
A Theoretically, that's how it works.
Q Okay. Some doctors follow that to a greater or lesser degree, right?
A I would agree with you on that.

(Pages 61 to 64)

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Q Okay. But -- and there's not something similarly developed yet where somebody can quickly and easily take a picture of HRCT and this is what a 1/1 should look like or the equivalent of this is what diffuse pleural thickening should look like and compare it to some kind of master image that is widely adopted or easy to use, right?

A No, there isn't anything out there like that yet.

Q Okay. On Page 697, there is a column -- in the second column, there's something called -- the heading is Pulmonary Function Tests. Do you see that?

A Mm-hm, I do.

Q The third paragraph in that section says, In addition to diminished lung volumes, the carbon monoxide diffusing capacity is commonly reduced due to diminished alveolar-capillary gas diffusion as well as ventilation-profusion mismatching.

Do you see that?

A Yes.

Q Okay. And then it goes on to say, Although a low diffusing capacity for carbon monoxide is often reported as the most sensitive indicator of early asbestosis, it is also a relatively non-specific

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finding.

Do you agree with that statement?

A I don't entirely because I would agree that it's not a specific finding because there's basically two categories of things that will modify the diffusion capacity, but that could be separated out pretty quickly with the pulmonary function studies as to the etiology of the diffusion capacity abnormality.

Q Well, first, there's -- actually, there's really two statements in that sentence, right, Dr. Whitehouse?

A Mm-hm. (Answers affirmatively.)

Q The first one is a low diffusing capacity for carbon monoxide is often reported as the most sensitive indicator of early asbestosis.

Now, do you agree with that?

A I do agree with that that's a very sensitive -- not necessarily early asbestosis, but it may be the only indicator of pulmonary functionwise to correlate what you're seeing radiographically.

Q Okay. And sensitive and specific have defined meetings within the field of epidemiology, correct? Or let me back up.

Sensitive and specific have defined meanings

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within the medical literature, right?

A Yes.

Q All right. What is your understanding of sensitive?

A Well, specific means nailing it down to a single -- make it simplistic. Specific means you nail it down to one cause or something clearly definable, whereas, sensitivity means it's the abnormal, but there could be a bunch of causes.

Q Okay. And so -- excuse me. Please finish.

A That's fine.

Q So if something is a non-specific finding -- and here we're talking about DLCO, you said a little while ago that there are other things that can cause a reduction in DLCO besides asbestos-related disease, correct?

A That's true.

Q That would be smoking, for example?

A Smoking is a minimal. I mean, that's so overblown it's unbelievable. In the literature, current smokers may be down, particularly in Australia literature, a small amount in their DLCO, but not to a significant degree.

Two things that make the difference is obstructive disease with ventilation-protrusion

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mismatches and interstitial lung disease, whether seen or not seen on the film. Those are the two big factors.

Q That affect that DLCO?

A Those are the two things that affect.

Q And obstructive disease can be caused by many things other than asbestos exposure, correct?

A True, except that a recent article on obstructive disease was the most common abnormality associated with asbestos disease. I mean it was the most common pulmonary function abnormality. There's an article by O'Hare* about that.

Q But you would agree with me there are lots of things that can cause obstructive disease in the lungs that aren't asbestos related?

A Surely.

Q I mean, chronic obstructive pulmonary disease is something that can happen as a result of smoking, correct?

A It may be due to emphysema due to smoking, but it may be also a manifestation of asbestos disease.

Q What else -- what other -- what other things can cause obstructive disease other than asbestos exposure?

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A You mean other than smoking --
Q Other than smoking.
A -- and emphysema?
Chronic asthma can be for many, many years. If you have asthma that's never been treated, it could result in chronic obstructive disease. There's also a fair number of much less common diseases that can do it such as bronchiectasis and some pulmonary vascular diseases can do it.
Potentially if you have enough lung obstruction, you can get overexpansion and enough lung resection from surgery, you can get a little overexpansion and cause it, but for the most part, it's either emphysema, chronic asthma, or asbestos.
Q Okay. Could you turn to Page 705?
A 700 and what?
Q 705 --
A 705.
Q -- of the 2004 ATS.
A (Complies.)
Q The carryover paragraph -- the bottom of the first column carrying over says, Although pleural plaques has long been considered inconsequential markers of asbestos exposure, studies of large cohorts have shown a significant reduction in lung

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function attributable to the plaques averaging about five percent of forced vital capacity even when interstitial fibrosis asbestosis is absent radiographically.
Do you see that?
A Yes.
Q Would you agree with me that a -- what they're talking about here is a decline of five percent as seen over a population of people, not the decline of five percent in any individual?
A Oh, I'm sure, yeah, it's a large population group. I don't know how big, but... (Pause.)
Q If a forced vital capacity declines by five percent in an individual, that may or may not be clinically significant, correct?
A Depends over what period of time. And you're talking about five percent of predicted or five percent of actual numbers? Because you lose a certain percentage every year.
Q Well, I'm just talking about the literature cited by the ATS statement.
Do you know whether the five percent they're talking about is five percent of predicted or five percent over a longitudinal period of time?
A I do not know the answer to that. I'm not

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familiar with those articles.
Q Okay. At the bottom of that paragraph, the ATS writes, Even so, most people with pleural plaques alone have well-preserved lung functions, and they cite to a study.
Do you agree with that?
A I don't have any problem with that.
Q Do you agree with me that the medical literature as it relates to asbestos-related diseases is quite extensive?
A It's voluminous.
Q And do you agree with me that equally qualified doctors can read the same literature and come to differing views about asbestos-related medical issues?
A Certainly.
Q Are you familiar with the debate in the medical literature about whether you can attribute lung cancer to asbestos exposure in the absence of underlying asbestosis?
A I've seen that. I don't know that I have an opinion about it.
Q Okay. You are -- you're familiar with the concept of pathology, right?
A Certainly.

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Q Would you agree with me that if you have pathologic specimens of someone's lungs, you can definitely determine whether or not they have a non-malignant asbestos-related disease or not?
A No, you can't.
Q You cannot?
A No, because frequently you cannot find the asbestos fibers except for in very sophisticated techniques in the lung, and so many of the pathologic specimens in people known to have asbestosis do not turn up asbestos bodies or asbestos fibers.
Q Have you ever heard pathology described as the gold standard for determining whether or not somebody has interstitial fibrosis?
A I haven't heard that. I'm not sure I'd agree with it either.
Q Okay. So you would -- you would dispute the idea that pathology would be the best indicator as to whether or not someone has an asbestos-related non-malignant disease?
A I think the best indicators are what we do day in and day out. We take an environmental history, we look at the x-rays, listen to the patient's chest, we look at the pulmonary functions, and make that decision, and I think we're probably

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right almost all the time.
Q Okay. So is it fair to say that you do not rely on pathology for your opinions about the severity or the distinctness of pleural disease caused by exposure to Libby asbestos as compared to pleural disease caused by other asbestos?
A No, except that I have seen some things on thoracoscopy photographs on the lungs which I have in my collection of photographs from a surgeon that I worked with in Spokane that demonstrates some things that are unusual and look different, but they aren't documented beyond that point, but... (Pause.)
(Mr. Stansbury exits.)
Q (By Mr. Finch) Who was the surgeon you used to work with in Spokane?
A Vern Holbert*.
Q Would you agree with me that from the perspective of pathology, there is no difference between pleural disease caused by exposure to Libby asbestos and pleural disease caused by anything else?
A I think there may be, but I can't tell you for certain. We see a lot more inflammatory disease. We see plaques that are scarlet red, very highly inflamed, which correlates with a high degree of chest pain and pleurisy in the people from Libby, and

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we see that when we look at the photographs and it's described by the surgeon that I'm referring to, who actually I've known for many, many years because I practiced in Spokane.
Q Okay. But you haven't taken pathology from people who died of -- according to you, died as a result of pleural disease caused by exposure to Libby asbestos and compared that to pathology taken from people who have pleural disease caused by other types of asbestos exposure?
A No, although those specimens are being collected.
Q But you haven't -- in any of your academic writings or in any of your reports, you have not made any kind of comparison of pathology between the asbestos disease caused by exposure to Libby asbestos and asbestos disease caused by exposure to anything else?
A No.
Q Okay. So you can't say that there's anything that is distinct or different about asbestos disease caused by exposure to Libby asbestos as compared to asbestos disease caused by exposure to some other type of asbestos from the perspective of a pathologist relying on pathological evidence?

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A Probably not, but I don't have enough evidence to say one way or the other at this point.
Q Okay. Have you read Dr. Sam Hammer's report in this case?
A Yes.
Q His opinion is based on the work that he's done, there's no difference from the pathology between asbestos disease seen in Libby patients and asbestos disease seen elsewhere?
A I believe that's his opinion, yes.
Q And you're not in a position to dispute that?
A No. I have a high regard for Sam Hammer.
(Mr. Stansbury returns.)
Q (By Mr. Finch) Do you have an understanding of the term used in epidemiology called a cohort study?
A Yes.
Q And what's your understanding of a cohort study?
A Well, a cohort study is a group of people that have something that you want to study and you put together in that cohort, either with or without controls, the nature of whatever it is you're studying and detailing it and outlining it.
Q So would you agree with me that for a cohort

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study to be valid, you have to define the cohort upfront and follow them over time to see how -- whatever it is you're trying to determine has an affect on them has an impact?
A It can.
Q You're familiar with the Selikoff study of the insulators that was done by Mount Sinai, correct?
A I am.
Q That's an example of a cohort study?
A Yes.
Q Would you agree with me that your -- the people described in your 2004 paper, that's not a cohort study?
A No, I think in a sense it is because of the way it was selected. It was selected as every patient that came into my office that had an asbestos disease, had zero pulmonary function studies every year, and so looking at that cohort, I just looked at everybody that had had two pulmonary function studies over a period, and as it turned out, it was over a period of a number of years, but -- so that's a cohort.
Q Well, it wasn't defined -- you didn't start out the way Selikoff did, with defining the cohort people who were exposed to asbestos and then

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following them over time, correct?
A These were already people that I knew had asbestos abnormality on their x-rays and had the exposure history on them.
Q Okay. So the selection criteria wasn't -- wasn't controlled by a level of exposure. It was just people who happened to have two or more pulmonary function tests?
A Basically that was it. It was a very simple study.
Q What did -- strike that.
In your expert witness report, you described some of the medical literature about the differences between chrysotile asbestos and other amphiboles asbestos being productive of mesothelioma or lung cancer. Do you recall that section of your report?
A Repeat, please, so I'm sure --
Q In your report -- in your report, you have a section where you describe what your view of the medical literature is about whether or not chrysotile asbestos is more or less likely to cause mesothelioma or lung cancer than amphiboles asbestos?
A Yes.
Q Did you read Dr. Frank's testimony in his deposition last week or two weeks ago --

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A I did.
Q -- on that point?
A Mm-hm. (Answers affirmatively.)
Q Did you have any understanding that the Berman and Crump* work that you refer to at paragraph 57 of your report was reviewed by an EPA science advisory board this past summer of 2008?
A I was not aware of that.
Q Dr. Frank was aware of it, correct?
A Yeah, no, I do understand he was.
Q Okay. And his -- he agreed with the EPA Science Advisory Board that the Berman and Crump work that attempted to quantify the differences between fiber type in causing mesothelioma or lung cancer was weak?
A He didn't dismiss it. He said that the school was still out on it basically in his -- in his deposition.
Q Right.
And the EPA Science Advisory Board determined the scientific basis that is laid out on in the technical document -- and they're referring to the Berman and Crump work -- in support of their method to attempt to quantify the difference between fiber types is weak and inadequate. That was his

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understanding of what the EPA Science Advisory Board determined, correct?
A Correct.
Q And I take it you weren't asked to participate in that science advisory board review of differences between fiber types, correct?
A No.
Q And you would agree with me that it's still the official position of the United States government that chrysotile is equally likely to cause mesothelioma as amphibole asbestos?
A I don't think it says exactly that. It says that the information -- that the data was weak. It doesn't say that it is not. It just says the school is still out on it, that Arthur's -- Dr. Frank's comments on that reflected that.
MR. FINCH: Let's mark this as the next exhibit.
(Exhibit-6 marked for identification.)
Q (By Mr. Finch) Dr. Whitehouse, this is an exhibit I used with Dr. Frank. I put it together from a combination of either statements in your expert witness report or statements that the Libby claimants' lawyers have made in papers filed with the

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court.
Would you agree that 9,500 is a good approximation of the people in Lincoln County, Montana, who were likely exposed to Grace asbestos?
A No.
Q What would be your figure for that?
A I have absolutely no idea. There were hundreds and hundreds of people that worked in the Libby dam that lived there for a couple years. There was a lot of construction going on at that point in time. There was a very transient population that came in and out at that point. There could be in the thousands. I just don't know the answer to that.
There's also a vacationing spot there. There's been a lot of people that would spend summers up there that are not included in that population, so the actual number of exposed people is probably a lot higher but are not included in any of Grace's figures because they excluded anybody that wasn't a permanent resident.
Q Okay. So I think I pulled that figure out of your report.
Would you agree with me that at least 9,500 people were exposed to Libby asbestos?
A Oh, I assume that that's probably -- you

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know, I don't think we really know for sure. I know that -- that it's probably more than that, but on the other hand, I don't know whether the people that lived up in the far extremes of the county were ever exposed to it as far as I know. It's a big county.

Q And then the ATSDR came in and did some screening a few years ago for -- to determine what -- how many people had x-ray abnormalities as a result of exposure to asbestos, right?

A And that was a -- they studied 6,000 and there was a significant number that were never looked at, and of those 6,000, there were a fair number of people that were not Lincoln County residents. They were people from Spokane that used to live there or from other parts of Montana, and I forget the exact number that had abnormal x-rays. I think it was 19 percent or 17 percent, so it was about 1,000 or more.

Q Okay. Could you turn to Page 30 in your expert report?

A Sure. Page 30?

Q Page 30. It's Page 30. It's -- I think it's paragraph 35. Paragraph 35 runs on for several pages. It's Page 30.

A Okay.

Q See at the top of the page, the Peipins, it

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talks about the 9,500 people --

A Right.

Q -- from Central Lincoln County?

So I take it that all of your opinions about pleural disease caused by exposure to Libby asbestos are valid only for the people who have asbestos-related disease, and you're not making any conclusions or analyses about the entire cohort people who were exposed to Libby asbestos; is that correct?

A Well, not really. I guess the best way to say that is that I'm sure that there are a fair number of people out there still that have not been discovered and may have abnormalities on their films, but I'm not drawing any conclusions about that because I haven't had a chance to study them.

Q Okay. So you're only drawing conclusions about -- your conclusions are only valid with respect to people who have already been diagnosed with asbestos-related disease; is that correct?

A That's correct.

Q All right. And then the second page of this, there's --

MR. LEWIS: Second page of what, Counsel?

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MR. FINCH: Second page of Whitehouse Exhibit-6.

Q (By Mr. Finch) You have stated in your report and elsewhere that there's approximately 1,800 CARD Clinic patients with asbestos-related disease?

A Yeah, that's the number that I got from the -- you know, the nurses that run the place about six months ago. They didn't have an exact number.

Q Okay. Would you expect that those 1,800 are largely overlapped with -- whether the exposed population was 9,500 or 6,600 or 10,000, that the 1,800 or the substantial majority of those people are a subset of the exposed population?

A I would think so, but there's a certain number of them that are not part of that Lincoln County population, above, anymore. They were at one time, but they're not now. They live -- there's a lot of patients in Spokane, in Missoula, in Kalispell, and some in Great Falls, and then we get patients all over the country coming back that used to live there, so -- and I don't know the breakdown in numbers. I have no idea what it is.

Q Okay. Could you go to the last page about this -- last page of Whitehouse Exhibit-6?

A Okay.

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Q Okay. Would you agree with me that your opinions about someone who has been diagnosed with an asbestos-related non-malignant disease as a result of being exposed to Libby asbestos, that that person would have a probability of death are based on the CARD mortality study?

A I'm only going to base that on the ones that I know more about which is the Libby claimants, the 950 there. I would point out one other point in this is that there's 1,800 clinic patients with a diagnosis. There's also another three or four hundred that have been screened and do not have disease.

Q Do not have disease?

A Do not have disease, but they're also part of the clinic.

Q But there's -- there's 1,800 people that are part of the clinic and there's 950 of them that are Libby claimants and you have more familiarity with that group than the 850 diseased patients that you see, but aren't the Libby claimants, correct?

A That's true and particularly since there's been a lot added in the last year or so and I've been working less up there.

Q And I believe I asked you this this morning,

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but you haven't done anything to compare and contrast either the type of disease or the severity of the disease between the 850 other patients and the 950 who are Libby claimants, correct?

A No.

Q You haven't -- you have not done that, correct?

A No, I have not.

Q Okay. And is it correct that you hold the opinion that someone who is diagnosed with a non-malignant asbestos disease caused by exposure to Libby asbestos is more likely than not going to die from an asbestos-related disease?

A Out of that 950?

Q Out of the 950 or the 1,800?

A Will you read -- repeat the question again.

Q Sure.

A I want to make sure I get it right.

Q Do you have an opinion -- do you have an opinion to a reasonable degree of medical certainty that for the 950 Libby claimants who have been diagnosed with a non-malignant asbestos-related disease, that each one of them is more likely than not going to die from an asbestos-related disease?

A The death rate, when we've gone through the

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death certificates in all of these people, it's something like 57 percent -- or I think it was 52 percent on best information, 57 percent was significant association with asbestos disease -- I think that group of people has the same breakdown in percentages as the 950 -- approximately a third miners, and the balance are community members and family members. Community members are the majority -- I think you can make the extrapolation having looked at those people myself, that most of the people that died are my patients, looking at those, then we're going to see the same thing in the 950 and so that there is a high probability or not a high probability, there's probability that they're going to die more than 50 percent from asbestos disease.

Q Okay. What about related --

A And then add to that the cancers on top of it.

Q What about the 850? The 850 on this that aren't --

A The 850?

Q Yeah.

A I'm not going to draw any conclusions. I don't know anything about them.

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MR. FINCH: Okay. This would be a good time to take another break.

THE WITNESS: Okay.

MR. FINCH: I just want one for personal reasons. Why don't we come back in five minutes?

THE VIDEOGRAPHER: We're going off the record. The time now is 10:30 a.m. This is the end of disk number one in the continuing deposition.

(Recess.)

THE VIDEOGRAPHER: We're back on the record. The time is now 10:37 a.m. This is the beginning of disk number two in the continuing deposition of Dr. Alan Whitehouse.

(Exhibit-7 marked for identification.)

EXAMINATION (Continuing)

BY MR. FINCH:

Q Dr. Whitehouse, I've put what's been marked as Whitehouse Exhibit-7 in front of you.

A Yes.

Q What is that document?

A Oh, that's a -- that's a counting sheet that was done basically on the basis of Dr. Frank's and my reading all these x-rays and these people for pleural

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thickness, the non-malignant ones, the pleural thickness, the blunting plaques, et cetera. We did it independently.

(Ms. Bloom returns.)

Q (By Mr. Finch) Okay. Let me see if I understand this. You started out with 227 people who were CARD Clinic patients --

A Yes.

Q -- that had died, right?

A Died through last year.

Q Through last year.

And this is the mortality study that you're relying on for your opinion as to probability of death, correct?

A That's right.

Q All right. Then you excluded 41 of them for various reasons, correct?

A Well, basically, they either didn't have any asbestos diagnosis to begin with, we didn't have a death certificate, couldn't get one, didn't have a chart, didn't get chest x-rays. There's a lot of reasons why, but unless we had a fairly complete set of data, we didn't -- they weren't included.

Q Okay. And that left you with 186 people?

A Right.

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Q And then of that, 34 of them died of mesothelioma or some other asbestos-related type cancer, right?
A Mm-hm, yes.
Q And then you got 76 that were nos and 76 that were yeses, right?
A Yes, exactly the same number. Sort of odd.
(Mr. Longosz returns from recess.)
Q (By Mr. Finch) What is it -- what is it -- who determined what versus a yes or a no? That was you?
A And Dr. Frank.
Q Well, he testified that he looked at the x-rays on the 76, but that you made the determination as to whether or not --
A Well --
Q -- there was a -- the death was due to an asbestos-related disease?
A Yeah, actually --
MR. LEWIS: Just a -- just a second. Object to that on the grounds it's not put in a form of a question and it's just a comment on Dr. Frank's testimony and should be strickened from the record.
MR. FINCH: Let me rephrase the question.

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Q (By Mr. Finch) How did you determine that someone was a yes versus a no?
A Dr. Frank actually did not do that part. I did that part of it. I misspoke. Basically what I did was I -- we looked at the death certificates or I looked at the death certificates. I looked at the chart, the x-rays, and made basically a decision based on all that information put together and some of my -- made a decision that it was probably a contributing cause and others which it was a direct cause, so you'll note that there was actually different percentages for the direct cause versus the contributing cause.
I had the advantage of the fact that I knew almost all of these patients within -- with just the exception of a few because I had seen so many of them over the years previously. That's how it came about.
Q Okay. And what standard did you use to determine whether or not someone died as a result of a non-malignant asbestos-related disease? Did you use a substantial contributing cause standard or did you use some other standard?
A I used the best available information, sort of an approach similar to what Selikoff did, tried to reduplicate his studies with the insulators and I --

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a lot of them were obvious. They were asbestos deaths. They were signed out, their death certificate, as asbestosis.
There was a fair number in which they would say a terminal pneumonia, but they had severe asbestosis and that was considered an asbestos death, and there were a number in which they called COPD and they really didn't have COPD.
This, unfortunately, is one of the problems with death certificates is that family docs not only in Montana, but in Spokane and everywhere else call everything COPD that dies of respiratory disease, and that's where you have to fare it out and look at all the data before you can make that judgment because it was asbestos related.
Q And when you were making the judgment as to whether or not it was asbestos related, how did -- what standard were you using to do that? Were you saying it's only asbestos related if I conclude to a reasonable degree of medical certainty that the asbestos-related disease was the cause of the death or did you also say that a death of asbestos disease related if you concluded to a reasonable degree of medical certainty that the asbestos disease contributed to the death?

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A We didn't use the contributing cause in the final numbers, okay, because that's always subject to a lot of discretion. What we did or what I did basically was to make certain that their death was directly caused in some form or another by their asbestosis. That means that having looked at their x-ray and their pulmonary functions and all their charting, that they had severe disease, and then they had to have some sort of a terminal event in which either the asbestosis killed them because they became a little bit more disabled or because of the fact that it led to another problem that killed them such as a pneumonia or severe cor pulmonale resulting from pulmonary hypertension, things like that.
Q Okay.
A And that's how the decisions were made.
Q Okay. Attached to your report and, unfortunately, it doesn't have a page on it, but it's kind of near the back, there's something that is entitled 116 Mortality List.xls.
A Let's see what number it is.
Q It's --
A Where is it?
Q In my copy of the report, it was -- it was before your references. It wasn't in an exhibit to

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your report. It was just --
A Is that it?
MR. LEWIS: Is this it?
A 116 Mortality List?
Q (By Mr. Finch) Yes.
A Excel?
Q Yeah.
What is that? What is that document, Dr. Whitehouse?
A Well, that document is the -- first off, the names of the people that are clients, plus the initials of people that are not clients. It gives a diagnosis date, whether it was on the death certificate they died or whether it was best evidence that caused it, who signed the death certificate, where they lived, things like that.
Q Okay. And it's --
A And it's basically the demographics of everybody.
Q Okay. This is the demographics of the people involved in the mortality study; is that correct?
A Yeah, that's right. And if you'll note that a lot of them, even though I didn't sign most of the death certificates because a lot of them died in Libby, I had seen them in enough proximity that I

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knew -- had seem them in Spokane and taken care of them in Spokane, so I frequently did not sign the death certificates myself.
Q Okay. Let me just -- let me just understand what this is.
This is 116 people --
A Right.
Q -- that you determined their -- that their death was due to an asbestos-related disease; is that right?
A Yes.
Q And this would include both the cancers and the non-cancers, right?
A Yes.
Q Okay. Why the discrepancy between the 116 shown here and if you add 76 and 34, you come up with 110?
MR. BERNICK: It's because you can't add, Nate. Let the record reflect that was in gest.
MR. LEWIS: Perhaps it's my shortcoming, Counsel, but I don't understand the question. I don't --
Q (By Mr. Finch) My question is -- my question is: Is there -- are there six people on this document, 116 Mortality List.xls that either didn't

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die as a result of asbestos-related disease or there's a miscounting or what?
A Those were the six that we took off to get final numbers.
Q Okay. All right.
A Okay?
Q I understand that now.
So this would be the --
A These are the ones that, originally, I thought were and then --
Q And then you took off six?
A Well, and then Arthur gave me some static about a couple of them and we -- because he had looked at a lot of these as well and then we narrowed it down by, you know, going through it a second time to come out.
The problem was that the first time I did this was contributing cause and the second time I did it was more directly as the direct best estimate of underlying disease that was the causing factor.
Q Okay. Now, let me make sure I understand the categories.
Worker W means somebody who worked for W.R. Grace?
A That was a miner, mm-hm.

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Q And sub means somebody who was a subcontractor that worked at the mines?
A Yeah.
Q And then FM means family member?
A Yeah.
Q Are you familiar with the medical literature that exists that shows that females or other family members of workers who were occupationally exposed to asbestos can be exposed to substantial amounts of asbestos in the home?
A Oh, sure.
Q Would you agree with me that generally speaking of the people in Libby, the people that worked at the mine were exposed to significantly more asbestos than the community exposures?
A In certain parts of the mine, almost certainly.
Q And would you also agree with me that the family members of people who were occupationally exposed to Grace's asbestos in and around Libby probably had higher exposures on average than people who just had pure community exposures?
A That is undetermined. It probably is true, but it's undetermined.
Q Okay. And then C, I take it, stands for

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community exposure?
A Right.
Q And what is C or FM? Is that just where you didn't know or couldn't tell?
A Sometimes you couldn't tell.
Q Okay. Going back to the counting sheet which is Exhibit-7.
A Mm-hm. (Answers affirmatively.)
Q For the lung function tests, I take it these are all related to the 76 who had non-malignant diseases, correct?
A Yeah.
Q And you mention in your answer -- some of your answers a little while ago, you were talking about people of the 76 who had died as a result of asbestosis. Do you recall that?
A Mm-hm. (Answers affirmatively.)
Q How many of them died as a result of asbestosis versus died as a result of pleural disease?
A We -- you know, basically there were less than a third that had -- even had interstitial disease when you looked at the x-rays. They may have had some interstitial disease on CT, but the majority of them had pleural disease.

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We finally came to the conclusion that when you excluded some of the ones that had it on CT, that probably eight of them and as many as eleven or twelve died of pure pleural disease. It's hard to determine for sure.
And some of them we didn't have CT scans on, and so you really didn't know for sure whether there's underlying disease that you didn't see in the scans, but only a third of them had interstitial disease on their plain films, so... (Pause.)
Q Okay. So a third of them had interstitial disease on x-ray; is that right?
A Yeah, and it was all 1/1 -- 1/0 or less.
Q And what about -- what -- in addition to that third, were there any that had interstitial disease that was visible on HRCT, but not visible on x-ray?
A Of that third?
Q No, of the whole 176 people.
A Oh, yeah, there were more that had it on CT scan that we did not see on the plain films, yes.
Q So those people had interstitial disease too?
A Yeah, they had minimal interstitial disease, but, yes, they did.
Q Okay. So if it was -- if your test was, does someone have interstitial disease observable by x-ray

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or CT scan, is it correct that a majority of the people in the 76 -- the group of 76 had interstitial disease?
A First off, you have to define what is significant in interstitial disease because according to the ILO or the ATS standards, a 1/0 or 0/1 doesn't count as an independent diagnosis, and we're counting a lot of those for 0/1s or 1/0s, so what absolute -- the actual number that had significant interstitial disease, I think it's in here somewhere.
Q In the counting sheet, you're looking at Exhibit-7, Dr. Whitehouse?
A Yes. I'm trying to remember where it is. Thirteen --
Q What page?
A -- another nine that had moderate.
Q What page are you looking at?
A At the second page, the back of the second page, the top of the thing.
Q Does it say Page 2 of 6 at the bottom there?
A Page 4 of 6.
Q Page 4 of 6?
A At the top. See at the top where it says group --
Q Got it.

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A -- pure pleural, minimal IF? Okay.
Q And IF stands for interstitial fibrosis?
A Yeah.
Q Okay. Now, back to the first page of Exhibit-7. That is lung function tests. Am I correct that of the 76 that died, 53 percent of them had a reduction of either FVC or TLC below 65 percent of predicted?
A Repeat that.
Q Yeah. You say -- what the document says is 29 have only DLCO, less than 65.
A Right.
Q 29 of 61 have only DLCO, less than 65.
A Right.
Q My question is: Is the flip of that true, i.e., do 32 out of the 61 have either forced vital capacity or total lung capacity less than 65 percent?
A Well, we know we have 28 listed here and 12 with TLC. That's 40. I'm not sure that I can answer your question on the basis of that.
Q Are you finished with your answer?
A Yeah.
Q Okay.
A Oh, I was waiting for you.
Q No, I thought you -- I thought you were still

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looking at the document and was going to add something. Sorry about that.

One of your -- in addition to the blunting requirement, one of your major criticisms of the TDP criteria for severe pleural disease is that -- and for that and the other non-malignant diseases, it doesn't allow for reduction of DLCO as a basis for qualifying for the compensation, correct?

A That's correct.

Q You would agree with me to the extent that is unfair or unequal or improper, whatever in fairness about that exists, would equally apply to people who were exposed to Grace asbestos outside of Libby as in Libby?

A You know, I don't know enough about any of the exposures of the people that were exposed outside of Libby to really draw any decent conclusions on it, you know. I mean, I understand Libby quite well and I understand chrysotile and the forms that I've seen it, but I'm not sure that I can tell you about it.

I would suspect that it's probably similar, but I don't know for sure.

MR. FINCH: All right. I am just about done. What I'm going to do is mark very quickly a set of references from the medical literature that

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I -- that you cite in your various parts of the report. I'm not going to ask you any questions about them. I just want to make sure I've got the right documents to make sure I know exactly what you're citing, so if we take a two-minute break off the record, I can get my colleague to mark all these and then we can just hand them to you and I can just go through them in probably five minutes or so.

THE WITNESS: Sure.

THE VIDEOGRAPHER: We're going off the record. The time is now 10:56 a.m.

(Exhibit-8 through Exhibit-14 marked for identification.)

THE VIDEOGRAPHER: We're back on the record. The time is now 11:01 a.m.

Q (By Mr. Finch) Dr. Whitehouse, do you have Whitehouse Exhibit-8 in front of you?

A Have what?

Q Whitehouse Deposition Exhibit-8 in front of you?

MR. LEWIS: This one.

THE WITNESS: Oh, this one.

A Yes, I do.

MR. LEWIS: Can you just identify it for the record, please?

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MR. FINCH: Yeah, this is the --

Q (By Mr. Finch) Do you recognize this as the -- it's an article entitled, Changes in the Normal Maximal Expiratory Flow-Volume Curve with Growth and Aging. The first lead author is Knudson?

A Yeah, this is the -- where the pulmonary norms come from.

Q This is the pulmonary norms for spirometry that you use; is that correct?

A Yes.

Q The next exhibit, Whitehouse Exhibit-9, this is a paper by -- entitled, Radiographic ILO Readings Predict Arterial Oxygen Desaturation During Exercise in Subjects with Asbestos. This is a paper you cite in your report?

A Yeah, I've seen that.

Q Whitehouse Exhibit-10 is the excerpt from the AMA, Guides to the Evaluation of Permanent Impairment that contains sections about the respiratory system; is that right, Dr. Whitehouse?

A Yes.

Q And you cite this in your expert report?

A Yeah, I'm sure we did.

Q By this, I mean Whitehouse Deposition Exhibit-10.

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A Yeah, mm-hm.

Q The next exhibit, Exhibit-11 --

A Mm-hm. (Answers affirmatively.)

Q -- is titled -- it's from the Journal of Occupational Medicine and Toxicology?

A Yes.

Q It's a paper by Susan Miles?

A Yeah, it's quoted in the article, I think, as Yates.

Q It's, Clinical Consequences of Asbestos-Related Diffuse Pleural Thickening: A Review. Is this something that you cited and relied on in one of your reports?

A Correct.

Q What is Whitehouse Deposition Exhibit-12?

A Lung Function Testing: Selection of Reference Values.

Q This is an American Thoracic Society statement, correct?

A Yes.

Q This is something you cite and rely on in your expert report?

A In part, yes.

Q Whitehouse-13 is something -- is an article entitled, Asbestos-Induced Pleural Fibrosis and

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Impaired Lung Function, David Schwartz, et cetera?
A Yes.
Q That's a document that you cite and rely upon in your expert report?
A Yes.
Q Whitehouse-14 is an article -- 1992 article by Lilis Miller, et al., The Effect of Asbestos-Induced Pleural Fibrosis on Pulmonary Function: Quantitative Evaluation?
A Yes.
Q That's an article you cite and rely on in your expert work in this case?
A Although is this '91 or the '92 one?
Q This is the '92 one. You cite both --
A I cite both.
Q -- but you rely on the '91 one -- I mean the '92 one as well, correct?
A Yes.
MR. FINCH: Okay. Let me look over my notes, but I think I'm done. So, off the record.
THE VIDEOGRAPHER: We are going off the record. The time is now 11:04 a.m.
(Recess.)
THE VIDEOGRAPHER: We're back on the record. The time is now 11:18 a.m.

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EXAMINATION
BY MR. BERNICK:
Q Good morning, Dr. Whitehouse. Last time I saw you was in the beautiful confines of Missoula, Montana.
A In the beautiful courthouse, right.
Q In the beautiful courthouse; that's right.
So I'm going to be asking you some questions here this morning that are focused on the somewhat different context of this case.
And let me just ask preliminary: I take it from your testimony that you've had occasion to review the deposition that was taken of Dr. Frank a few days ago; is that correct?
A Yes.
Q Is there any other testimony that you've reviewed in connection with your work in this case?
A Testimony or reports or both?
Q Just testimony.
A Oh, I reviewed Dr. Welch's and Dr. Parker's.
Q Okay.
A And Dr. Moolgavkar's. I don't know how you pronounce that.
Q Moolgavkar.
A Oh, Moolgavkar, okay.

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Remind me who else you've done recently.
Q Oh, I don't know. I've not really kept careful --
A That may be all. I'm not sure.
Q Did you review any of the testimony --
A Orrig*, yeah, I did review that.
Q You did review Orrig?
A Yeah. Some of those, more detailed than others admittedly.
Q Did you review any of the testimony that was offered at the trial, at the criminal trial?
A Only my own.
Q Okay. Didn't review the testimony of Dr. Lockey* or --
A No.
Q -- Dr. Lemon*?
A No.
Q Whose idea was it to review the testimony -- the deposition testimony of the defense experts that you mentioned?
A Oh --
MR. FINCH: Object to form.
A -- I think Jon Heberling asked me and thought it was a good idea if I did.
Q (By Mr. Bernick) Huh?

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A Jon Heberling, the attorney, thought it was a good idea if I reviewed them.
Q Mr. Finch is reminding me that this is not a case of plaintiffs and defendants any more, so I shouldn't refer to defendants. He's grinning because --
A Oh.
Q -- he jumped at the opportunity to correct me, which I appreciate, of course.
So to be clear --
MR. LEWIS: We thought you guys -- we understand you guys are in a lockstep on all these issues.
MR. BERNICK: Well, you'd be surprised. The most miserable, knock-down, drag-out fights you can possibly imagine. I go home and talk to my wife about how difficult it is for us to get along.
Q (By Mr. Bernick) No, seriously, Mr. Heberling thought it would be a good idea if you reviewed the deposition testimony offered by the experts who are appearing for the plan proponents; is that right?
A Yeah, he did and he provided me copies of them.
Q Okay. So -- but -- so did he make the

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selection of which transcripts you should read?
A No, I think he just -- I think he's always given me everybody's transcripts for the most part, not all of them maybe, but anything that's happened in the last month or so, I think I've got copies of.
Q Okay.
A He keeps me pretty well informed.
Q Whose idea was it for you to review the transcript of Dr. Frank's deposition?
A That was mine actually.
Q Okay. And why did you decide to read Dr. Frank's deposition?
A I know Dr. Frank pretty well, okay, and basically I wanted to see what he had to say. I don't think he said anything that I particularly disagreed with or modified anything I was going to say, but I -- I didn't know for sure that -- what he thought about some things and I wanted to be sure that I knew.
Q So you read it and read it carefully?
A I don't know if I read it carefully. I spent twenty hours Saturday and Sunday reading depositions and reports, so I don't know how careful that is. There's an awful lot of pages there.
Q Well --

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A I speed-read which may be part of it. That's how I get through a lot of this stuff sometimes.
Q Okay. But did you make sure to read his deposition?
A Yeah, I did read it, I think, as carefully as I read any deposition which, I mean, I get bored to tears after a little while.
Q The twenty hours that you spent as basically -- this is Monday (sic), so over the last two days, you spent roughly ten hours a day doing some reading?
A Yeah, I did a crash course basically to make sure that I was informed of all the issues that were coming up here and to make sure that I was informed about all the -- you know, my own report and all and that I didn't -- didn't miss anything or didn't forget anything. I mean, there's been an awful lot of water under the bridge here and --
Q Right.
A -- a lot of things that have happened. This mortality report has been ongoing right up until last week. I mean, I've been looking at that and making sure I, you know, understood some of the numbers that came out of it which were sometimes difficult to comprehend in the absentia of the whole thing.

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Q Okay. Before this last week ended -- let's just strike that.
The crash courses, you call it, and I'm not -- there's no particular magic to that term, but was that in anticipation of your being deposed today?
A Yeah.
Q Okay. That's fair and we appreciate your undertaking that effort.
Prior to this last weekend, had you read Dr. Frank's deposition?
A Prior to this last weekend?
Q Yes.
A I'm not sure. I only got it, I think, about Tuesday or Wednesday and then I had a number of other things that were going on, and so I don't -- I really could not. I would have done it sooner if I could have.
Q Okay.
A But my wife was involved in a charity golf tournament and, of course, she enlisted me doing all the work.
MR. LEWIS: Doctor, I should remind you just to answer the question that's been asked. Okay?
THE WITNESS: Okay.
MR. BERNICK: And we'll be sure to

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caution him when he strays from --
THE WITNESS: Well, that was a little bit of a stray; you're right.
MR. BERNICK: Well, we were interested in the golf tournament.
MR. FINCH: Or the fees --
MR. LEWIS: You can talk that over with the doctor at the next break, Counsel.
MR. BERNICK: Okay. That's fine. You're thinking that I'll -- that I won't be finished by the next break. Who knows? Maybe I'll be all done.
Q (By Mr. Bernick) So, Dr. Whitehouse, how did you -- did you make a special request of Mr. Heberling to get the Frank transcript?
A I don't actually recall.
Q Okay. As a result of reading any of the depositions, did you do any further work in connection with the case?
A No, I don't think so, but I did -- as part of all the stuff that I was reading was making sure I went over all the data sheets on various things that I've done over the last year or so to be sure that I had all the numbers -- the important numbers in my head.

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Q So basically over this last weekend, you sat down to do the final prep for your dep and you had a whole collection of materials that included expert reports, depositions, and other information that you wanted to make sure that you reviewed before you were deposed, fair?

A Fair enough.

Q Okay. I want to first ask you about your experience and seeing patients who had asbestos-related illness outside of Libby, that is, people whose exposure wasn't related to Libby. Okay?

How many cases -- how many people have you seen where you diagnosed asbestos-related illness from exposures outside of Libby?

A I don't know the answer to that exactly. I have estimated I probably have seen over the years as many as 500.

Q 500 people that you diagnosed or 500 people that you saw in connection with the possibility that they had asbestos-related illness?

A Well, that's a good question because -- and I don't know that I can answer that question. I mean, it probably -- it may be half and half. There were a lot of them that were sent to me for confirmation of a diagnosis by Washington Labor and Industry.

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Q Okay. Is it true that with respect to your experience in seeing people with asbestos-related illness not related to Libby that you have published no papers?

A No, I have published no papers.

Q Is it also true that with respect to those people you have not provided or you're not aware of anybody who's provided medical files relating to those people to anybody involved in this bankruptcy case?

A No.

Q Is it true? Is what I said true?

A That's correct. That's correct, yes.

Q Is it true that in connection with your work on this case and the reports that you've done and the testimony that you've offered that you've provided -- presented no data relating to patients that you've seen with asbestos-related illness unrelated to Libby?

A That's correct.

Q Okay. And I think you said in your own words this morning that pretty much you've studied strictly asbestos disease in Libby; is that correct?

A Not entirely. I read pieces of literature over the years, but the -- most of the work that I did concerning those people with chrysotile exposure was pretty well before the Libby thing all broke, and so there wasn't any driving force for me to maintain data or anything like that.

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Q Okay. But let me -- that's fair and let me just ask you this question: Is it accurate that you've not done any scientific analysis of diffuse pleural thickening in any patient population outside of Libby?

A That's true.

Q Let's talk a little bit about diffuse pleural thickening in the literature which, of course, is going to relate to folks outside of Libby, right?

A Most of it does, yes.

Q Well, there's not any -- there's no published literature about diffuse pleural thickening in Libby specifically, correct?

A That's correct.

Q So if we want to talk about diffuse pleural thickening in the published literature, we're talking about that disease as it's been studied and published for people outside of Libby, fair?

A Yes.

Q Okay. Would you agree that diffuse pleural thickening is a distinct diagnostic entity?

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A Well, it's treated as such in the literature. There's obviously confusion in that literature though in that there's data or reports concerning confluent pleural plaques and their effect on lung function which makes you wonder whether -- about that -- where does confluent pleural plaques leave off and diffuse pleural thickening begins. It sort of sounds like the same thing, but it is treated pretty much as a separate disease in the literature.

Q I asked -- I just asked Dr. Frank, I said, is it true that the scientific literature defined a diagnostic entity called diffuse pleural thickening at least as of the 1970s and without relationship to Libby, Montana, and his answer was yes.

A I would concur with that.

Q Okay. And, in fact, we can go throughout the literature during this whole period of time and whether or not diffuse pleural thickening is defined to include what you called confluent plaques or not, the literature has regarded diffuse pleural thickening as a distinct diagnostic entity, fair?

A That's fair.

Q Okay. Is it also true that diffuse pleural thickening has been studied scientifically over those years at least since the 1970s?

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A Yes.
Q Is it true that there are papers that have been published and presented that specifically focus on the pathology or pathological presentation of diffuse pleural thickening?
MR. LEWIS: Objection. That's a compound question.
Q (By Mr. Bernick) Go ahead and answer.
MR. LEWIS: Which is it? Which question do you want him to answer, Counsel?
MR. BERNICK: I don't think it's compound.
Q (By Mr. Bernick) Do you understand the question?
A No. Why don't you repeat it, please?
Q Is it true that there are papers that have been published and presented focused specifically on the pathology or pathological presentation of diffuse pleural thickening?
A I'm sure there have been.
Q Is it also true that there are papers that have specifically sought to measure the effect of diffuse pleural thickening on lung function?
A Yes.
Q Okay. Now, I first want to talk about

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Dr. Frank's background and then I want to talk about your background. Let's begin with Dr. Frank.
Is it true that Dr. Frank has published no papers regarding diffuse pleural thickening?
A I would have to take your word for that.
Q Are you aware of any?
A I'm not aware of any.
Q Are you aware of Dr. Frank ever presenting any papers regarding diffuse pleural thickening?
A I have no idea.
Q Are you aware of whether Dr. Frank has ever even studied the scientific literature regarding the effect of diffuse pleural thickening on lung function?
MR. LEWIS: Objection. Argumentative.
MR. BERNICK: Well, all cross-examination is argumentative.
MR. LEWIS: No, but that one --
MR. BERNICK: You think that one was a little bit over the line? I'll rephrase it.
Q (By Mr. Bernick) Is it true that Dr. Frank has not himself studied the scientific literature regarding the impact of diffuse pleural thickening on lung function?
A I have no idea what he's studied.

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Q Well, we asked him those questions. Did you see in his deposition I asked him those questions?
A You know, I did miss that. Off the periphery for a minute, I -- I didn't pay that much attention to --
Q Well, I will tell you that he testified in his deposition that he had not done a review of the literature on the impairment associated with diffuse pleural thickening.
A Okay.
Q And my question -- and was not able to answer my questions on that, so I then get to this question: You -- in this case -- I should say -- in this case, we've received expert reports authored by you?
A Yes.
Q And we've also received expert reports that purport to be expert reports authored jointly by you and Dr. Frank and have both your names on them?
A Yes.
Q Do you know what I'm talking about?
A I do.
Q Who actually wrote Dr. Frank's name on those reports?
A Who actually wrote his name?
Q Yeah. Who decided to include his name on

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those reports?
A Well, I assume probably -- well --
Q You don't have to assume. You just --
A I can't --
Q As counsel will tell you, if you know, say. If you don't know, say you don't know.
MR. LEWIS: Exactly correct. That's what I'd like you to do. If you know, answer the question truthfully. If you don't know, say you don't know.
A I don't really know.
Q (By Mr. Bernick) Okay. Well, did you review those reports before they were issued?
A Yes.
Q Did you write those reports?
A Yes.
Q You wrote them word by word?
A Not word for word. The way I do the reports is that I write down all the various things, go over the various things with the attorney or the secretaries and their secretaries type it up for me because I don't have a typist available to me.
Q Okay. So you write them out in hand?
A I do some in hand and some of them I do verbally and then I check a draft and then make a lot

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of corrections to that and then send it back and get it typed.

Q But the content of the reports that had both your name and Dr. Frank's name, the content of the reports is all yours?

A Mostly mine.

Q Well --

A He added some things to it. I'm not quite sure what all was added in retrospect, but I know that it was run by him and then he made changes in it.

Q Okay. But in terms of the original authorship, you are the original author of all reports that bear your name?

A Yeah, basically.

Q Okay. Whose idea was it to have both Dr. Frank and you be -- have the same report?

A I don't know.

Q Well --

A I don't know whether it was his idea or whether it was the attorney's. It wasn't mine.

Q It wasn't yours?

A No.

Q Well, but if it wasn't your idea, why was it done?

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A Well, there's no reason why we couldn't not do a joint report. We've discussed all kinds of things --

Q Well, that report --

A -- Dr. Frank and I have.

Q That report purports to reflect not only your opinions, but Dr. Frank's opinions, right?

A That's correct.

Q And we learned from Dr. Frank that he didn't know of some of the literature and some of the opinions that were in the report, so whose idea was it that the report would be for both him and you?

MR. LEWIS: Objection. That question has been asked and answered a couple of times now.

Q (By Mr. Bernick) Well, let me just ask -- I'll withdraw it.

Didn't -- wasn't -- had you ever before issued an expert report in connectin with litigation which was a joint report of yourself and somebody else?

A No.

Q Well, didn't it strike you a little bit odd that that was happening here?

A No, not particularly because, you know, I met with Dr. Frank a number of times in Libby and we

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discussed all kinds of things relative to Libby cases, and so having a joint report -- it didn't seem that out of line to me, no.

Q And you just don't know whether it was his idea or the attorney's idea?

A I don't.

Q Okay. Let's turn to your own background.

It's true, is it not, that you have not published any papers at all on diffuse pleural thickening?

A That's correct.

Q Is it true that you have presented no papers on diffuse pleural thickening?

A True.

Q Is it true that you've not made a systematic study of the literature, the scientific literature on diffuse pleural thickening?

A I have read a lot of literature concerning diffuse pleural thickening.

Q I understand that.

A Whether that's systematic or not, I don't know that I could answer that.

Q Well, but that's -- I mean, you already told Mr. Finch as an example that there were papers that dealt with the progressive loss of lung function

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associated with pleural disease that were mentioned in the ATS 2004 paper that you hadn't even read, right?

A That I -- I didn't know whether I read them. I didn't -- I didn't look exactly at the sites. There were three of them there at that point and I don't know whether I read them or not. I don't think I did, but I don't know for sure.

Q Well, but you come here to offer expert opinions regarding diffuse pleural thickening and I know that you -- I know the basis of your expert opinions insofar as Libby is concerned or I think I do. We're going to get to that in a minute, but what I'm really exploring is the degree to which you can hold yourself out as being an expert in what the scientific literature says about diffuse pleural thickening outside of Libby.

MR. LEWIS: Objection. That's a speech of counsel. It's not a question.

MR. BERNICK: Then wait for the question.

MR. LEWIS: Well --

MR. BERNICK: I'll ask a question.

MR. LEWIS: It's completely loaded up. It's an improper question, Counsel. You're very

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experienced. You know it was improper.
MR. BERNICK: No, I think it's very proper because it tells the witness very candidly exactly where I'm going.
MR. LEWIS: No, it's loaded up. It's very argumentative.
Q (By Mr. Bernick) Here's my question to you, Dr. Whitehouse, in order to -- so as to not prolong the agony: Have you done a comprehensive review of the scientific literature regarding the impact of diffuse pleural thickening on lung function?
A Define comprehensive.
Q Well, it's not a huge piece of -- it's not a huge body of literature, is it?
A Oh, there's a lot of literature. I mean, there's literature not only in the U.S., but in Australia, South Africa, in Great Britain, and I've read literature from all those areas. Now, I don't know what the definition of comprehensive is.
Q Well, have you done a system -- have you done a -- have you done a literature search, a scientific articles search to gather those studies that focus specifically on diffuse pleural thickening and its impact on lung function? Have you done that?
A I haven't done it systematically.

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Q If I were to ask you about different results and different studies, that is, when does diffuse pleural thickening lead to a measurable loss of lung function or not, would you be able to tell me the different studies and their different results on that very specific issue?
A You mean you want me to actually quote an article and what the article says?
Q I want you to be able to talk with me about it in the deposition because I really want to know if you hold yourself out as an expert in the differing results that have been seen when data has been gathered on the impact of diffuse pleural thickening on lung function.
MR. LEWIS: You finished?
MR. BERNICK: Yeah.
MR. LEWIS: Objection. That's not a question. That's a statement of counsel. I move that it be strickened.
Q (By Mr. Bernick) Can you hold yourself out as an expert in the differing results that have been recorded in the scientific literature when scientists have asked what is the impact of diffuse pleural thickening on lung function?
A Well, to begin with, I don't use the term

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expert related to myself particularly. I basically am a longstanding practitioner with very extensive experience in lung disease and very extensive experience in Libby disease and I have read a lot of literature concerning diffuse pleural thickening that I have utilized in formulating my opinions. Now, I don't guess that that would be considered systematic, but that's the way it is.
Q Fair enough. And I've always recognized that you are candid in responding to questions and get to the point. That is my point. We're going to get to the Libby experience in a minute, but I'm talking about your -- I'm talking about your expertise in what's been reported outside of Libby.
Do you consider yourself to be an expert in the science, the scientific results of what's been reported outside of Libby when it comes to the impact of diffuse pleural thickening on specific lung function tests?
A I think I'm knowledgeable about what's in the literature relative to that.
Q But do you consider yourself to be an expert in what's in the literature with respect to that?
A I told you before, I don't use the term expert --

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Q But a lot of other people do, people in your field.
A Well, I don't.
Q Well, I'm just asking you: Do you consider yourself to be a person who can speak authoritatively to what all the literature says outside of Libby about the impact of diffuse pleural thickening on specific lung function results?
A You used the term all the literature, and, no, I have not read all the literature, every piece of the literature. I've read a substantial portion of the literature. I don't even know what the percentage is.
Q So you don't know what you don't know?
A Yeah, I think I know what I don't know.
Q Okay.
A What I don't know is -- also gets quoted in a lot of these articles you read. What I haven't -- I shouldn't say don't know. What I haven't read necessarily is also summarized in a lot of these articles.
Q Okay. So if you give answers to my questions today about when and under what conditions does diffuse pleural thickening actually cause a substantial reduction in lung function, you and I can

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have a dialog on the actual data that's in the literature and you'll be able to respond? You're being held out as an expert in this case. You'll be able to respond to that as an expert; is that fair?

A I can respond very accurately to what happens in people in Libby, what happens to their pulmonary function relative to diffuse pleural thickening. I'm not going to make any attempt to summarize what happens in the chrysotile world in that regard.

Q Can you make any attempt to summarize what happens in the non-Libby -- you pick out chrysotile. I'm not just focused on chrysotile. I'm --

MR. LEWIS: Counsel -- Counsel --

(Simultaneous talking.)

MR. LEWIS: I've got the floor now. Don't argue with this witness. You'll have great latitude. I understand this is cross-examination, but just answer the -- ask questions, let the witness answer. Don't make speeches, please.

Q (By Mr. Bernick) Was your last answer confined to chrysotile as opposed to amphibole?

A Basically, I have reviewed a great deal of literature relative to amphiboles and diffuse pleural thickening, particularly the Australian literature which has a lot of information in it. I don't know

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how much altogether there is in the chrysotile literature except that it's -- in many respects, it's been neglected because of the fact there's been so much emphasis on interstitial lung disease and chrysotile over the years, so that's where -- that's basically where I get my information from.

Q Okay. Let's pursue this a little bit and see where it goes.

MR. BERNICK: And I'm sorry. That was a declaratory statement by me.

MR. LEWIS: Yes, but it's preparatory to your next line of questioning.

MR. BERNICK: So that's okay?

MR. LEWIS: I have no problem with it. I'm not being a jerk here.

MR. BERNICK: No, I know.

MR. LEWIS: I'm just --

MR. BERNICK: I don't think you are. I think you're being fine. I disagree with what you're doing, but --

MR. LEWIS: I understand that.

MR. BERNICK: -- you look like a nice guy.

Q (By Mr. Bernick) So the literature -- let's talk a little bit about the literature. All my

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questions now are going to be about the literature until we get to Libby and I'll let you know. Okay?

A Mm-hm. (Answers affirmatively.)

Q Is it true that the literature, the scientific literature reflects that there are different types of diffuse pleural thickening?

A I think you need to define what you're saying by different types of diffuse pleural thickening.

Q Okay. Anatomically, there are two different layers of the pleural, correct?

A Oh, that's what you're referring to?

Q Well, if laypeople -- so I don't get into trouble with the claimants' lawyer here, let me just try to get to the questions.

The literature says -- or it's true anatomically that there are two different layers of the pleural, correct?

A That's correct. Well, that -- you didn't say that.

Q Okay. And one layer is called the parietal pleural, correct?

A Yeah, you don't need to tell me about the anatomy of the chest. I'm pretty good at --

Q Well, I just want to make sure that we get it straight.

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And the other layer is called the visceral pleura, right?

A That's correct.

Q Okay. And when you refer to confluent plaques, that's a fibrotic process that affects and is evident in the parietal pleura, correct?

A Well, that's where it's considered that plaques begin and where -- where the majority of plaques are. It's not totally exclusive, but I think that's probably a reasonable statement and most of the plaques we see are initially on the parietal pleura.

Q And the condition known is confluent plaques. It's a condition, a fibrotic condition, involving the parietal pleura, correct?

A That's correct.

Q And the visceral pleura also can experience -- strike that.

If we take a look at definitions of diffuse pleural thickening, sometimes there have been definitions that diffuse pleural thickening didn't include the parietal pleura, correct?

A Yes.

Q Now, we've talked about the visceral pleura. The visceral pleura can also be involved in -- it can

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have thickening as a result of asbestos exposure, correct?
A Yes, very much so.
Q And there's a fibrotic process that can lead to a condition called blunting of the costophrenic angle, correct?
A Yes.
Q And that's a condition that affects the visceral pleura, correct?
A Well, I think it -- no, not entirely. It involves everything --
Q Well --
A -- if you look at --
Q -- the condition of blunting of the costophrenic angle, to the extent that it affects, it is a fibrosis of the pleura, is a fibrosis of the visceral pleura, correct?
A Not entirely. It involves both. If you look at a blunted angle, there's no way to say that it involves only one portion of the pleura than the other. It's not possible to say that.
Q It arises as a result of fibrosis in the visceral pleura, correct?
A I don't think that's necessarily true. If you look at -- it's likely that it starts that way,

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but it's not necessarily true because, you know, most of that arises from the fact that people -- some of the literature has said that, you know, 90 percent of these are due to pleural effusions. Some of the literature though disagrees with that.
Q Well, let's get specific.
You tell me the literature that says the fibrosis involving blunting the costophrenic angle arises in the parietal as opposed to the visceral pleura. Tell me one study.
A McCloud's study demonstrates the relationship of fibrosis with strands across between the visceral and parietal pleural.
Q That's not my --
MR. LEWIS: Let him finish his answer and then you can inquire again, Counsel.
A And that's basically what we're talking about when you're talking about blunting of the costophrenic angle.
Q (By Mr. Bernick) My question, Dr. Whitehouse, is simple. Tell me a single study that says that the fibrotic process involved or associated with blunting of the costophrenic angle begins in the parietal pleura.
A I don't know that there's a study that says

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it begins there.
Q That's what I asked you.
A Well, except that what I -- what I --
Q What's indicated --
A -- indicated to you in the McCloud --
MR. LEWIS: Let him finish.
MR. BERNICK: No, no, that's not --
Q (By Mr. Bernick) Just focus on the question and answer the question.
A That's what I was doing.
Q Okay. I asked you a question. Let's be very clear. Is there a single study that says that the fibrosis that's consequent on blunting of the costophrenic angle or associated with it starts in the parietal pleura?
A McCloud's study demonstrates that stranding occurs and there occurs an inflammatory response in the parietal pleura associated with the visceral pleura.
Q Didn't --
A There's no difference between the angle and the rest of the pleura. It's all part of the relationship between the visceral and the parietal pleura.
Q That's completely nonresponsive. I used the

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word start.
Let's start talking etiology. Okay? The etiology of blunting of the costophrenic angle, the etiology says it begins with a fibrotic process involving the visceral pleura, correct?
MR. LEWIS: I think that -- Counsel, that question is compound. I don't think --
MR. BERNICK: Let's make --
MR. LEWIS: You don't define etiology. Etiology could be something --
MR. BERNICK: Just say --
(Simultaneous talking.)
MR. BERNICK: Just say objection to form, compound, or ambiguous. Okay? It's not that complicated. You're just making -- you're making a record.
MR. LEWIS: In Montana, you can't just say objection to form.
MR. BERNICK: This is a federal -- this is a federal proceeding that's taking place --
MR. LEWIS: In Montana --
MR. BERNICK: It's taking place --
MR. LEWIS: All right.
MR. BERNICK: -- pursuant to a process. The only reason we're in Montana is for

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Dr. Whitehouse's convenience. Okay? So the Montana rules --

MR. LEWIS: I stand corrected.

MR. BERNICK: -- don't govern this process.

MR. LEWIS: I stand corrected, Counsel. All right?

MR. BERNICK: So I'll do my best to ask clean, clear questions.

MR. LEWIS: And I'll do my best to protect the record as well, but I'm not trying to interfere with your examination.

Q (By Mr. Bernick) Now that we've had this meaningful dialog, Dr. Whitehouse, the question to you is: Isn't it a fact that where you have diffuse pleural thickening arising from or associated with blunting of the costophrenic angle, it originates in the visceral pleura?

A I don't think that's necessarily known.

Q Well, but you tell me where's the study that says otherwise. Where's the study that says -- you tell me anybody who said that it originates someplace else.

A Well, to begin with, there's a fair amount of discussion and lot of argument in the literature and

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there was prior to the 2000 ILO that blunting was, first off, not necessarily had to be present for there to be diffuse pleural thickening.

Q You're answering an entirely different question.

A No, I'm not.

Q I asked a very specific question. The origination of a fibrotic process that is associated with blunting of the costophrenic angle, tell me a single study saying that it originates anywhere other than the visceral pleura. I just want the study that says that.

A I told you once before, the McCloud study demonstrated fibrotic process, pleural in the parietal pleural. That's what we're talking about in blunting. I'm sorry, whether you like it or not.

Q No, you talk about the -- you talk about the fact that there's fibrotic process that runs between the two layers and that's not my question.

MR. LEWIS: My problem here, Counsel, is you're arguing with the witness and that is entirely improper. Ask him a question, he answers it, when he's finished, then you get to inquire again. You constantly cut him off and that's improper.

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Q (By Mr. Bernick) Let me ask you this question, Dr. Whitehouse: Would you agree with me that the diffuse pleural thickening that's associated with confluent plaques is different in origin and appearance and in the origin and presentation from the diffuse pleural thickening that's associated with the costophrenic angle?

A You've made the assumption there that diffuse pleural thickening has to be associated with blunting of the costophrenic angle.

Q I didn't say that.

A Well --

Q Just listen to my question.

A -- your question assumes --

Q No.

A It does.

Q It's just a simple question.

Would you agree with me that the diffuse pleural thickening that is presented in confluent plaques is different in type from the diffuse pleural thickening that is associated with blunting of the costophrenic angle? There are two different types of diffuse pleural thickening.

A I don't --

MR. LEWIS: Objection. Counsel, you

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had a fair question there and then you had to comment on it and you had to give your opinion as to it. That's improper. Please ask the witness a question and don't make editorial comments about your own questions.

MR. BERNICK: Well, don't make editorial comments about your objections. We can go through this process and pretty soon we'll just break off and call the judge.

MR. LEWIS: That's fine. I'm willing to call in the judge right now --

MR. BERNICK: This is really --

MR. LEWIS: -- on your questioning this witness.

MR. BERNICK: -- really an impediment to the process here that we haven't experienced before in the case.

Q (By Mr. Bernick) I'm just trying to find out, Dr. Whitehouse, whether there's a difference between diffuse pleural thickening arising from confluent plaques and diffuse pleural thickening associated with blunting of the costophrenic angle. Tell me whether there's a difference or not.

A There's a difference between those two, clearly.

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Q Okay. And that clear difference has been recognized in the scientific literature, correct?
A The difference that's been recognized that you're reporting to is you're making the assumption that diffuse pleural thickening is present with blunting by the way the question is phrased and how it's in the context of it.
Why don't you ask me the question, is there any difference between pleural thickening that doesn't involve blunting and confluent pleural plaques, which would be the more logical question to ask me.
Q That's not the question that I asked you.
You just said that there was two -- a clear difference between diffuse pleural thickening presented through confluent plaques and diffuse pleural thickening that's associated with blunting of the costophrenic angle.
A I eliminated the blunting of the angle from my answer.
Q No, you said --
A I just did in that comment that I made.
Q Okay. Okay. So now there's not a clear difference between diffuse pleural thickening involving confluent plaques and diffuse pleural

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thickening involving blunting of the costophrenic angle? There's not a clear difference? Just tell me yes or no. There's no trick to it. I just want to know whether they're different or not.
A I think there is a trick to it because --
Q No.
A -- the trick is getting me to agree to the fact that there is -- blunting has to be there with the diffuse pleural thickening and --
Q No.
A -- I'm not willing to agree to that.
Q No, no, no. We're going to go down that road in a minute.
A Why don't we go down this road first and then come back to that?
Q No, no.
Let's just talk about the diffuse pleural thickening that is associated with blunting of the costophrenic angle. Okay? Got that in mind?
A Okay.
Q Is that different? Is there a clear difference between that diffuse pleural thickening and diffuse pleural thickening presented through confluent plaques?
A Yes, there obviously is. There's not a

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problem with it in the confluence in the plaques.
Q Okay. And is that clear difference recognized in the scientific literature?
A I think it is.
Q Okay. And now let's turn then to the question of impairment associated with diffuse pleural thickening. Okay? I asked Dr. Frank whether the impairment associated with diffuse pleural thickening was restrictive, obstructive, or both, and he said that it was restrictive. Would you agree with that?
A I think predominantly so.
Q Are you aware of any literature reporting obstructive impairment consequent on diffuse pleural thickening?
A As I recall, it was alluded to in the Orrig article. They were mostly talking about interstitial disease.
Q Right.
A But that's the only context that I know about for sure.
Q Well, that's what I'm talking about.
Set aside interstitial disease. And I know that you have opinions on that. I'm not going to get into that. When we just talk about diffuse pleural

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thickening, isn't it the case that the literature only reports impairment in the form of a restriction?
A Yes, I think that's true.
Q Okay. Now, when we deal with impairment associated with confluent plaques, has the literature analyzed whether there is impairment to lung function associated with confluent plaques?
A Well, the literature has already analyzed the fact that plaques themselves cause loss of lung function.
Q I didn't ask you that.
A Well, that's plaques and confluent plaques could be expected --
Q I'm specifically talking about confluent plaques. You're really going to have to listen to the question carefully because otherwise we'll just take a long time.
You talked about -- we talked about there being a difference between diffuse pleural thickening involving confluent plaques and diffuse pleural thickening where it is associated with blunting of the costophrenic angle.
Now, with that difference in mind, I'm asking you about impairment. That's very clearly where I'm going. Okay? So I'm now going to ask you a

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question.
Is there literature that analyzes the impairment that is associated -- whether impairment is associated with confluent plaques, is there literature that does that?
A I don't know for certain. I know that there's literature associated with plaques. I assume there is with confluent plaques. I haven't seen it.
Q You have not seen literature --
A I don't recall a specific article that relates only to confluent plaques.
Q Well, that's interesting because I believe that you take issue with the idea that diffuse pleural thickening should be confined in definition to thickening that's associated with blunting of the costophrenic angle. That's something you take issue with, correct?
A Well --
Q You don't like to see the definition of diffuse pleural thickening confined to the condition that arises in connection with blunting of the costophrenic angle, correct?
A That's correct.
Q Well, but if that's true, why haven't you looked to see -- looked to the literature

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specifically dealing with confluent plaques to see whether it causes impairment or not?
MR. LEWIS: Objection. That assumes facts not in evidence.
MR. BERNICK: No.
MR. LEWIS: That's not what he said.
MR. BERNICK: I'll rephrase the question.
Q (By Mr. Bernick) Have you made a specific review of the literature to see whether confluent plaquing causes a loss of lung function? Have you made that inquiry?
A I'll repeat again. I've looked at the literature concerning plaques and you'll see the notes in there and also in ATS 204 -- 2004, that plaques cause loss of lung function. Schwartz has written about that, and whether those are confluent or just plaques, I don't know because I don't think there's very much literature about confluent plaques, at least I don't think I've run across it.
Q Well, can you say that the diffuse pleural thickening presented as confluent plaques actually has caused -- been shown to cause a loss of lung function?
A I mean, how can you say otherwise when you

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know plaques cause loss of lung function? What's the difference between that and confluent plaques as far as the loss?
Q Your lawyer is now going to tell you that what you should do is answer the question, not ask another one.
MR. LEWIS: I'm not going to say another thing. I was just keeping you from interrupting him because you want to interrupt this witness every time he says something you don't like.
MR. BERNICK: I like everything Dr. Whitehouse has to say. He knows that, and you'll learn that, you know, as we go through the day.
Q (By Mr. Bernick) The question is pretty simple. If -- confluent plaques is another way in which you get pleural thickening, correct?
A That's correct.
Q Have you specifically looked into the literature to see whether that type of diffuse pleural thickening has been shown to cause a loss of lung function? Have you done it? Yes or no.
MR. LEWIS: Objection. He just answered the question, completely and thoroughly answered the question. It's asked and answered.
Q (By Mr. Bernick) Go ahead and answer.

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A What you're asking me is whether I've looked at the word confluent in it.
Q No, that's not what I'm asking.
A Yes, you are. That's exactly what you're asking me. And what I said before was that I know that plaques cause loss of lung function and the literature is very clear on that, so there's every reason to believe that confluent plaques are going to lose lung function probably to more extent that plain plaques, but I haven't read any literature about it.
Q That's my point is that whatever you might expect or whatever might make sense, you haven't actually looked to the scientific literature on confluent plaques to see whether there is, in fact, report or data showing loss of lung function, correct? You haven't done that.
A No, I have not.
Q Thank you.
Now, the literature -- the literature that you say shows that plaques have been associated with the loss of lung function, that literature, you haven't reviewed that systematically either, have you?
A No, I've read a lot of that. Systematically? Where is a private practitioner going to

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systematically make searches of everything in the literature? That doesn't happen. You read literature that's pertinent. You read literature that comes out. You look at it as it comes out. And then you digest it and use it in your practice. That's what I do.

Q You haven't even looked at the literature cited by the ATS 2004 paper itself, correct?

A Why would I want to? Why is there a need to?

Q I didn't ask you that. You have --

A Well, no, that's a legitimate answer. What is the need for me to do so?

Q Can you actually cite me to any specific study, any specific study showing that any form of plaquing actually causes a loss of lung function? Can you give me one study?

A Schwartz's article.

Q Schwartz?

A Yes.

Q Is that it?

A I know that one for certain right off the top of my head.

Q And you're sure that that shows a loss of lung function associated with plaques?

A I'm pretty certain about that. It also shows

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it associated with diffuse pleural thickening. There's multiple articles by Schwartz.

Q I'm just asking about plaques.

A I'm pretty sure that's where that originally came from.

Q From Schwartz?

A I think so.

Q Is there any other study that you can talk to me about which shows that pleural plaques alone have an affect on lung function?

A Not that I can off the top of my head, no.

Q Now, let's change the question a little bit. Let's talk about significant affect on lung function, and let's even make it more.

I want to know about any paper that shows that plaques have been associated with a reduction of lung function to the point that lung function is beyond the range of -- is below the range of normal.

Have you seen a single paper showing that any form of plaque -- plaquing is associated with the loss of lung function so that it's below the range of normal?

A I can't quote one to you.

Q Can you -- apart from quote, are you aware that there is a study, a single study -- if you'd

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just focus on me for a moment, Dr. Whitehouse, it'll expedite matters.

MR. LEWIS: Well, what was that, Counsel? What was --

MR. BERNICK: Mr. -- Dr. Whitehouse was reviewing papers and wasn't looking at me, so I suggested that he --

MR. LEWIS: Well, you're asking him about papers and --

MR. BERNICK: No.

MR. LEWIS: -- I think he's entitled to look at papers.

MR. BERNICK: No.

MR. LEWIS: He doesn't have to even look at you when he's answering the question. You presume too much, Counsel. You need to be fair to the witness. Okay? You make speeches and you say answer it yes or no. You're entitled to do some of that, but this is getting over the top. You should be respectful to the witness and not argue with him on every answer that he gives.

MR. BERNICK: Are you done with the lecture?

MR. LEWIS: I'm done with my statement.

MR. BERNICK: Okay. Let's dispense

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with your statements and I'd really appreciate it if you don't raise your voice and don't lean over the table and be angry with me.

MR. LEWIS: Well --

MR. BERNICK: I'm sorry. I'm sorry. Let me finish now.

MR. LEWIS: Go ahead.

MR. BERNICK: I think that my questioning is entirely legitimate cross-examination and I don't think it's up to you to decide whether it's legitimate or not legitimate cross-examination. It's up to the judge to decide. And she'll have that opportunity.

And I've examined Dr. Whitehouse before and I was never accused in the very vigorous cross-examination of not being fair with Dr. Whitehouse by a Montana federal judge in a proceeding that you're very well aware of.

And I'm not -- I don't think I'm treating Dr. Whitehouse with disrespect. I don't think that's what the record will reflect. I'm very eager and anxious to get answers to very precise questions.

So just do me a courtesy. If you have an objection, make an objection. If you believe the deposition is abusive, you can always terminate it.

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I don't believe it is abusive at all.
Q (By Mr. Bernick) Dr. Whitehouse, I now want to ask you, again, the same very specific question.
Are you aware of any study, that there is even a study, showing that plaquing can cause a reduction of lung function so that it's below the range of normal?
A Would you give me a moment to review this article? I'm not sure whether it's in here or not.
Q Okay. If you could just tell us what the article is while you're --
A It's the Schwartz article. It's one of his. This is the '89 one. There's also one from 2000, 2001. This is the one that demonstrated that the FVC one was -- that the FVC was decreased by plaques. (Peruses document.)
Unfortunately, he doesn't present this -- this is 10 percent as predicted, but he reports that in pleural fibrosis, the decrease in FVC associated with people with circumscribed plaques is 3.75 versus 4.09 which is basically .343 -- 340 cc's, which is about pushing ten percent loss, and that with diffuse pleural thickening, it's about a liter, which is clearly below the normal range in his study.
Q Right.

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A So I don't know whether that's actually below the range of normal or not, but it's got to be very close.
Q Well --
A He reported it as such.
Q Okay. Are you sure that that's ten percent?
A Pretty close to it.
Q Not pretty close. You're here as an expert. Do you know?
A 4.09 and 3.16, okay, it's -- it's about eight percent.
Q Eight percent?
A Maybe nine percent.
Q Does that reflect -- does that reflect that the resulting loss of lung function is below the range of normal?
A It all depends where the first one started. Depends what 4.09 liters plus or minus .91, whether that is actually, indeed, 100 percent or whether it's a population of which the -- everybody was 90 percent of predicted. Depends on what the normal values he used.
Q So that's my whole point.
Can you tell me as an expert today of a single study which shows that plaquing alone results

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in a loss of lung function below the range of normal?
A No, I probably can't, although I think that this demonstrates significant loss.
Q But I didn't ask you about significant loss. I'm talking about severe loss.
A Well --
Q This talks all about severe --
A No.
Q -- loss.
A Not with plaquing alone. Diffuse pleural thickening, yes.
Q Well, diffuse pleural -- I want to make sure that we don't have a problem there either.
Can you tell me of a single study anywhere which shows that confluent plaquing results in a severe loss of lung function?
A No, and I don't think he discusses that in this article either.
Q Can you tell me a single study anywhere that shows confluent plaquing results in a loss of lung function below the range of normal?
A I'm not aware of any.
Q Now, let's talk about blunting.
A Yes.
Q Blunting is associated with a substantial

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loss of -- strike that.
Blunting can be associated -- I don't like that one either.
If you take a look at the studies, there are studies that focus specifically on the association of blunting with loss of lung function, correct?
A Well, they're associated with diffuse plural thickening and you're using that as part of the definition.
Q Yes. Well --
A I'm saying that if you don't have --
Q I'll rephrase my question.
A -- blunting, you don't have diffuse pleural thickening.
Q You're correct to correct me, so I'll rephrase the question.
There are studies that look to examine whether the diffuse pleural thickening associated with blunting of the costophrenic angle leads to or is associated with a loss of lung function, correct?
A Yes, there's more lung function in that group, yes.
Q Okay. And those studies do show that diffuse pleural thickening associated with a loss of blunting of the costophrenic angle can lead to a loss of lung

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function that is both significant and severe, correct?
A That's correct.
Q And, in fact, produces a reduction of lung function to below normal ranges, correct?
A That's correct.
Q Would you, therefore, agree with me that the diffuse pleural thickening associated with blunting of the costophrenic angle has a clear track record of being associated also with very severe impairment?
A Yes.
Q And is it also true that it is for that reason -- I'm not here to debate with you whether the definitions are good or bad, but would it be fair to say that it's for that reason that some scientists have decided to define diffuse pleural thickening by including in the definition blunting of the costophrenic angle?
A I suspect that that may very well be the reason why they decided to do so, but what I've been saying and what's in the data that we produced is that we've got about half of these people that died with diffuse pleural thickening and there was no blunting, and by definition then, they don't have it, so that's crazy if you have a definition that doesn't

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explain what they've got.
Q Didn't I say that I'm not focused on whether the definition is right or wrong?
A I am.
Q Well, that's great, and so when you have your opportunity to testify, if you want to talk about the definitions, that's fine with me.
A I certainly will.
Q I'm not going to ask you about the definition excepting and only in one respect. I think that you answered this question, but you then went on to make a long statement, so I want to make very sure that we're in agreement on this.
One of the reasons why some scientists have decided to define diffuse pleural thickening by including in the definition blunting of the costophrenic angle is that the literature has shown that where diffuse pleural thickening is associated with blunting, there's a very substantial risk of severe impairment, correct?
A That's correct.
MR. LEWIS: Objection. Argumentative.
Q (By Mr. Bernick) Now, the scientists that have decided to define diffuse pleural thickening in a way that includes a requirement to blunting, those

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scientists are actually in the mainstream of researchers in diffuse pleural thickening, correct?
A I'm not sure I can answer that question.
Q Are you aware -- well, certainly, the -- Dr. Frank has told us that ATS 2004 itself can be reasonably interpreted to say that blunting is part of what diffuse pleural thickening is, that it's a requirement, correct?
A Oh, it does say that, yes.
Q In the same --
A But you're talking about experts, you know, in the scientific sense here. Are you talking about experts in the 2004 -- are you talking about the experts involved in this trial?
Q Okay. I'm talking about the experts involved in the scientific community, whether or not they are part of this trial. I'm talking about people who are recognized as being authorities in the scientific community in this area.
The mainstream of those people say that diffuse pleural thickening requires there be blunting of the costophrenic angle, correct?
A That's correct, that's what they say.
Q That's true of the ATS and that's true of the ILO, correct?

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A That's true.
Q And with respect to the ILO, while you've been critical of the ILO, the ILO is an independent, rigorous review process and it's very important in the medical community what the ILO has to say about this, correct?
MR. LEWIS: Objection. Compound. Argumentative.
MR. BERNICK: I'll break it down.
Q (By Mr. Bernick) The ILO is an independent -- it's an independent research and pronouncement process, correct?
A The ILO is supposedly an epidemiological tool for the establishment of extent of disease in populations and cohorts. Okay? It's not used that way any more, unfortunately, even though it was designed that way.
Q I'm very interested in that. That's not the answer to my question.
I said independent. The ILO is regarded as being independent, correct?
A I guess so, yeah.
Q Okay. And the ILO is regarded as being -- it involves participation of people who are high quality, recognized scientists, correct?

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A I assume so.
Q You're not aware -- you're not here to say that in some fashion the ILO process or the people who are involved are biased, are you?
A There's a number of articles out that -- and I can't quote them to you right off, the authors, but there are a number of articles which can be provided to you that demonstrate there's an incredible variation between ILO readers that tends to make the ILO system very difficult to use.
Q I didn't ask you about any of that. I said biased. Are you saying that the --
A Well, is that a bias or what is it then? I mean --
Q Those are B-readers, interreader variability among B-readers. Nothing to do with my question. I'm talking about the process whereby the ILO classification systems are developed and issued by way of pronouncement, that process.
A The way it was developed --
Q Yes.
A -- fine, I don't disagree with that.
Q Okay. Well, that's -- that's fine. That's what I'm asking you about.
You don't disagree with the way that the ILO

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2000 classification was developed in terms of its independence or the quality of the scientists involved, do you?
MR. LEWIS: Objection. Asked and answered.
Q (By Mr. Bernick) Do you disagree -- do you believe that -- strike that.
Do you have any issue with the quality and independence of the science and the scientific process that led to the development of ILO 2000?
MR. LEWIS: Objection. Asked and answered.
A No, with the following exception, the ILO standards were pretty much developed around conventional asbestos disease and I'm trying to relate to you something that's different that relates to Libby asbestos.
Q (By Mr. Bernick) I'm not talking about that. I understand that where --
A Well --
Q Did I say -- did I say to you, Dr. Whitehouse --
A These are --
Q I --
A These are also intermingled. It's very

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difficult to separate one from the other. I'm sorry.
Q Fine.
Did I say to you that we'll reach a point in the deposition where we'll talk about Libby? I said that, right?
A Yes, you did.
Q Okay. We're going to -- we're not there yet, so I'm just asking you about the ILO scientific process itself.
A The original process, I'm sure, was done appropriately and I'm sure it was done in 1980 appropriately when they did it originally.
Q Okay.
A What I was referring to was not that then. Maybe it's a little of that. I don't know. But I'm referring to practical usage as it is currently used.
Q I'm not -- I'm not even talking about that. I'm just talking about the ILO 2000 classification document.
A Okay.
Q Do you have any issue with the fact that it was developed by independent scientists who were recognized as being authoritative in their field?
A I don't have any reason to believe otherwise, no.

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Q Okay. Fine.
Would you also recognize that they focused specifically on diffuse pleural thickening as part of their process in 2000?
A They -- they did. I guess you would be reasonable to say that they did, whereas, prior to that, they had not focused very much on it --
Q Okay.
A -- but they did spend more time on it.
Q Okay. And would you also agree with me that if we look in the literature for -- you said that the mainstream definition now includes blunting of the costophrenic angle. Are you aware of anybody who has written a peer-reviewed article anywhere in the scientific literature that says it is wrong to require blunting of the costophrenic angle in the definition of diffuse pleural thickening?
A I haven't seen that it says that in the literature, no.
Q Now, let's talk a little bit about interstitial asbestos, although if people are getting a little hungry, we can --
MR. BERNICK: Are the sandwiches around?
MR. LONGOSZ: Should be over down the

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hall.
MR. BERNICK: Let me know if you want to -- are you a little bit peckish?
THE WITNESS: This is probably a good time.
MR. BERNICK: What?
THE WITNESS: Probably a good time for a break anyway and have lunch. It's 12:30.
MR. BERNICK: Okay.
THE VIDEOGRAPHER: We are going off the record. The time is now 12:30 p.m.
(Lunch recess.)
(Mr. Stansbury exits.)
THE VIDEOGRAPHER: We are back on the record. The time now is 12:50 p.m.
EXAMINATION (Continuing)
BY MR. BERNICK:
Q Dr. Whitehouse, I want to shift gears here and ask you some questions about interstitial asbestosis and then we'll go back to pleural thickening for the rest of the dep, but just some basics.
Would you agree that the scientific literature recognizes interstitial asbestosis as being a distinct diagnostic entity?

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A Yes, the literature does, yeah.
Q Okay. And pathologically, interstitial asbestosis involves a fibrotic process in the parenchyma of the lung, correct?
A Correct.
Q And it can be progressive?
A Yes.
Q And it can result in substantial impairment, correct?
A Yes.
Q Would you also agree with me that in the literature, interstitial asbestos can range from mild to very severe, both -- just leave it at that, from mild to very severe?
A Yes.
Q And can do so both in the extent of the fibrosis and in the extent of the impairment?
A Yes.
Q Would you agree with me that scientific convention in the area of asbestosis says that both the degree of fibrosis and the degree of impairment can be rated or measured?
A Yes.
Q So that when it comes to the extent of fibrosis, B-readers, people who are certified to read x-rays for fibrosis, will have the ability to rate the degree of fibrosis using the ILO system, right?

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A Yes.
Q And when it comes to impairment, scientific convention measures the impairment associated with asbestosis through basically lung function tests including forced vital capacity among others, correct?
A That's correct.
Q Okay. All that is very plain scientific convention, correct?
A Yes.
Q Now, let's talk a little bit about severe asbestosis.
Scientifically, is there a bright line test for when asbestosis is severe? And by asbestosis, I mean interstitial asbestosis.
A Oh, there's been attempts to quantitate it by FVC, but they're not very accurate.
Q Okay. What about in terms of the degree of fibrosis? Are there bright line medical tests for when asbestosis is severe in terms of degree of fibrosis?
A Well, I think most people think it's, you know, you get past ILO 3/3 or 3/2, then it's thought

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to be severe, although there's people who disagree about it and there's people that -- there's a lot of variation between observers in those numbers.
(Ms. Rickards returns from lunch recess.)
Q (By Mr. Bernick) Okay. Now, you were asked some questions about the trust distribution procedures or TDPs in the plan of this case, and I want to show you what I think is your Exhibit-2. Do you have it here someplace?
MR. LEWIS: That's right over here.
Q (By Mr. Bernick) We don't want you to walk off with these, Dr. Whitehouse.
MR. LEWIS: Are you accusing this witness --
Q (By Mr. Bernick) We would be confused forever.
A -2, you said?
MR. LEWIS: Yeah, looks like this.
A That's the one I was looking for.
(Mr. Longosz returns from lunch recess.)
Q (By Mr. Bernick) If you take a look at Page 26 of Exhibit-2, do you see severe asbestosis as one of the categories? It's category -- or level

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4-A. Do you see that?
A Yeah.
Q And you're aware, are you not, that the TDP -- this aspect of the TDP basically is a part of a process where people can either qualify for compensation based upon an expedited review or if they choose, look for compensation about it based upon an individual review. Are you -- I know you're not an expert in it, but are you generally familiar with the expedited review versus the individual review?
A Yeah, I am, and I would -- another thing, I did make an error concerning the ILO of 3/2. It's actually 2/1 --
Q Okay.
A -- concerning severe asbestosis.
Q So basically as you understand the TDP when it comes to these definitions of severe asbestosis at level 4-A is an expedited or a set of benchmarks for an expedited review based upon a paper submission. Is that your general understanding?
A Yes.
Q Okay. Now, I want to suggest to you and I want you to accept for purposes of the questions that I'm going to ask you that the TDP criteria for this

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expedited review are designed to pick out and qualify for compensation cases of severe asbestosis that can be established through objective criteria and are clear cases. That is, it's not looking for the borderline cases. It's looking for the clear cases. I want you to assume that for purposes of my question.
And in light of that, if we take a look at level IV-A, as you see it, does this use criteria for severity based both upon the presentation of the disease and upon the impairment? Is this a category that works with both the disease presentation as well as the impairment?
A Probably as best as it can be, yeah.
Q Okay. And that's really what I wanted to get to next is that you see that it uses -- the severe asbestosis TDP calls for an ILO of 2/1 or greater for asbestosis determined by pathological evidence.
Is it true that with that test the scientific literature says that that test will, in fact, succeed in picking out and qualifying patients that do, in fact, have very significant fibrosis?
A The only caveat I have is that -- yeah, if you sent it to Sam Hammer, you'd get a good answer. Okay? If you sent it to some other path labs that I

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know about, the chances are that you're not going to get the correct answer --
Q Okay.
A -- because of the sophistication of the equipment necessary to make a decent answer and generally TEM, and so, you know, electron microscopy.
Q But if the goal is to pick up clear cases for expedited treatment of people with significant fibrosis, doesn't science say that if you have pathological pathologists who says that it's asbestosis, that's going to be -- that's going to be a requirement that -- strike that. Strike all that. I want to rephrase this just to be simple.
We've got a test for expedited qualification of people who've got clear cases. Would you agree with me that the scientific literature says that a diagnosis of asbestosis by pathology is a pretty reliable way of determining, at least those people who have significant fibrosis?
A I'm not sure I'd agree with you and -- now, this is on personal experience. Okay? There's no question that the average pathologist will pick up the fibrosis and the interstitial disease. Okay? But the proof of asbestos fibers in the specimen, at least in Spokane, is very wanting and it is in

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Kalispell.
The docs tend to either not have the equipment or don't know exactly how to do it, so the problem is that -- and I'm not arguing with those criteria, by the way. I want you to be aware of that, but the problem is when you're talking about pathologic specimens, I think you're going to get a lot of people that are going to -- they submit something like that, say, from a lung biopsy or something like that, the asbestos fibers will be missed and it won't be called asbestosis.
Q Fair enough.
But where the pathology does find asbestosis --
A That's fine.
Q -- which is what the TDP requires, those will be pretty clear cases of significant fibrosis, correct?
A It could be misleading. You could -- you could be picking up a case where it's not significant or doesn't meet an ILO standard of 2/1. It meets -- it's maybe 1/1 or something like that, but I would assume though that it wouldn't have gotten submitted unless the vital capacity was low or some other reason.

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Q Yeah. What I'm really getting at is -- and you say you don't take issue, but what I'm really getting at is, you know, maybe -- maybe I haven't been simple and clear enough putting it to you.

The criteria of 2/1 ILO or asbestosis by pathological evidence, science says that those are pretty good tests for picking up clear cases of significant fibrosis; would that be fair?

A Yeah, I don't have any issue with the fibrosis criteria here. I really don't.

Q Okay.

A And as I told you, I don't know enough about the dollar amounts that I'm going to make any comments about them.

Q I'm not asking you about that at all.

Likewise, the TDP for severe asbestosis also calls out a requirement for impaired lung function, correct?

A Yes.

Q And works with TLC and FVC in doing so, right?

A Yeah, the one issue --

Q Let me just get to the question.

A Okay. Go ahead. Sorry.

Q Would you agree with me that there too, the

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TDP has tests that science says should pick up people with clear cases? Let me be clear about that. Not suggesting that it will pick up all of them, but the people who qualify under the TDP based upon -- strike that.

Would it be fair to say that under the science today, those people who do have impairment meeting the tests of the TDP for severe asbestosis are likely to be people who do have significant impairment?

A That's true. And if I could say something relative to this?

Q Sure.

A It's interesting that TLC is used rather than DLCO. DLCO -- TLC is probably less accurate than DLCO is as far as its consistency of the study. That's one problem that the DLCO is not in there.

The second problem with this is that the ratio is greater than 65 percent because it's well known that asbestosis can produce a significant obstructive defect.

Q You're answering a different question and I'm glad you did.

A Okay. But I -- you know, I said I didn't have much issue with it, but the more I -- I didn't

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have issue with that first part, but I do have issue with the second part.

Q Okay. You don't -- you didn't have issue with the first part, you're referring to the tests for fibrosis as set forth in level 4-A, correct?

A Right.

Q But I'm glad you made the statement that you did because I want to be clear on the focus of my questions, and this is important, Dr. Whitehouse.

I'm asking you really not whether you or somebody else could have included other criteria which would have had the effect of picking up more people. I'm not asking you that.

I'm asking you whether the criteria as set out, both for fibrosis and for impairment in level 4-A, are criteria which if they're met by a claimant, that claimant -- science says that claimant is, in fact, likely to have a pretty clear case of severe asbestosis. In other words, these criteria -- I'm sorry. I'll rephrase.

These criteria are criteria that science says will pick up clear cases. You may say they may not pick up all of them, but they'll -- the cases they pick up will be clear cases of severe asbestosis, fair?

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A Well, true, except that -- let me give you an example of one that will not, and we run into this periodically. Somebody that has interstitial fibrosis, that is, UIP, usual interstitial pneumonitis, it's non-asbestos related and then we discover they don't have asbestosis because we can't establish an exposure history, and so your point number four there about supporting medical documentation is a very important factor in that, you know. I mean, you have to have documentation of the disease.

Q I think you're agreeing with me.

If we look at the TDP for severe asbestosis and we ask, do the tests that are set out in that TDP, are those tests tests that science says if they're met by claimants, those claimants are, in fact, likely to have severe asbestosis, is the answer to that question yes? If these tests --

A Well, yes it is. If you read the entire thing, yes, it is.

Q So if we read TDP for severe asbestosis in its entirety, that is a TDP which science says will pick up people who are pretty clear cases of severe asbestosis; is that fair?

A That's fair.

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Q Okay. Now, it will also not pick up other people who may have severe asbestosis, I take it is what you're saying?
A Yes, that's a problem.
Q Okay. Well, it may or may not be a problem depending upon what the judge in this case thinks, but you're saying in one of your criticisms of these TDPs is who they exclude, fair?
A Fair.
Q Okay. And this TDP for severe asbestosis will exclude people outside of Libby, nothing to do with Libby, will exclude people outside of Libby that may have severe asbestosis, fair?
A Yes.
Q And you're saying it will exclude -- in your own experience, it will exclude people within Libby who have severe asbestosis, correct?
A I think it is much more likely in Libby for them to be excluded because of the nature of the disease than it would be outside Libby.
Q Well, we're going to get to that in a minute, but both inside and outside of Libby, if these tests for severe asbestosis are met, science says those people will pretty clearly be people with severe asbestosis, correct, in both places?

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A I think reasonably, yes.
Q Okay. And by the same token, this test that is in the TDP for severe asbestosis will exclude people both inside and outside Libby that some might say based upon a different test, in fact, have severe asbestosis. We're in agreement about that, correct?
A Yes.
Q Okay. Now, the people outside of Libby who are excluded will include people who have low DLCO scores, right?
A Correct.
Q Will exclude people who are not 2/1s, but maybe, you know, 1/1s but has severe impairment. There will be borderline cases outside of Libby, right?
A Yes.
Q And with the borderline cases, are you familiar that in the trust distribution process, they'll have the opportunity for individual review?
A I understand that.
Q And you understand the same thing will be true with people of Libby?
A Yes, I think one of the things that really disturbs me about that is it's not a physician that's reviewing it. It's not a pulmonologist.

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Q Okay.
A A pulmonologist is really knowledgeable about asbestos. That would make a lot of difference to that.
Q But that's true outside of Libby and it's true inside of Libby, correct?
A It ought to be.
Q Throughout -- well, I understand that, but that criticism that you have of individual review applies both outside and inside of Libby, right?
A Yes, it does, but the same thing that I just said about it holds true is that, how can a non-physician, somebody that's not really knowledgeable about asbestos diseases by having dealt with it on a regular basis make that kind of a decision.
Q I want to take a look now at the TDP for severe disabling pleural disease level 4-B, and my questions are really very much the same, which is that this is a TDP that seeks to pick out people with severe disabling pleural disease by both of imposing a test for the presentation of the disease as well as by imposing a test for severity of impairment, fair?
A Yes.
Q Okay. And when it comes to the diagnosis,

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would you agree with me that when it comes to tests for the presentation of the disease that science says that where people meet that test, it's pretty clear that they do have diffuse pleural thickening?
A How they answer this question is --
Q It's where the test is met.
A Well, I think you may be right about that, where the test is met.
Q That's what I'm asking.
A But the test itself has some severe limitations and problems with it.
Q I'm not really going to debate that with you in the questions I'm asking you right now.
A Okay.
Q I'm asking you the same kinds of questions that I asked you about when it comes to severe asbestosis, that is, the tests that are imposed by the TDP for severe disabling pleural disease, for the diagnosis of it, those are tests that science says if they're satisfied, the claimant will be a pretty clear case of having severe disabling pleural disease, correct?
A Yes.
Q The same thing is true with the impairment requirements for level 4-B, correct?

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A Correct.
Q Okay. So we take a look at the TDP for severe disabling pleural disease, is it such that science says that where it's met, those will be pretty clear cases where people, in fact, have that disease, fair?
A If you concur with the entire body of science.
Q Yes, that is, if we look at the entire body of the science, that science --
A If you agree with that.
Q Oh, no, I'm just saying -- I'm saying again, just like I did with severe asbestosis, that science says with -- where these tests, in fact, are met, people who satisfy those tests are highly likely -- are clear cases where they have severe disabling pleural disease. Not saying they're the only ones, but once they meet the tests are going to be pretty clear cases under the science; is that fair?
A Okay.
Q Is that -- I don't want an okay. Is that right?
A Yes.
Q Okay. Now, we also know as we went through with severe asbestosis that the test for severe

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disabling pleural disease level 4-B will, in fact, exclude people outside of Libby who some might say -- doctors might say, in fact, have severe disabling pleural disease, right?
A Yes.
Q And it will also exclude people within Libby who you would say have severe disabling pleural disease, correct?
A Yes.
Q And I think what you said this morning is that if you took a look at the McCloud study, the McCloud study relates to people who are outside of Libby, right?
A Yes.
Q And I think you said that under the McCloud study more than -- more than 50 percent of the people in the McCloud study wouldn't pass the requirements of level 4-B in the TDP, right?
A Right.
Q When it comes to people within Libby, I think you said that the TDP would have the effect of excluding about the same proportion of people in Libby with severe disabling pleural disease as was reflected in the McCloud study, correct?
A Pretty much.

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Q Okay.
A Close to it.
Q So we're talking about roughly the same proportion and effect of the TDP both inside Libby based upon your own experience and outside Libby based upon the McCloud article. Did I get that right?
A Yeah, on the basis though or the caveat I would say about this is on the basis of just that aspect. We're not talking about DLCOs or anything else. Just about --
Q Blunting?
A Just about blunting.
Q Okay. So when it comes to the blunting criteria in level 4-B, that has the same proportion and effect inside Libby as outside Libby, fair?
A Very similar.
Q Okay.
A Very close.
Q Now, if we wanted to include --
MR. BERNICK: Why don't you just change it now?
So for people outside on the telephone, we have a conspiratorial process here inside the room called changing the tape.

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THE VIDEOGRAPHER: We are going off the record. The time is now 1:15 p.m. This is the end of disk number two in the continuing deposition of Alan Whitehouse.
(Pause in the proceedings.)
THE VIDEOGRAPHER: We're back on the record. The time is now 1:17 p.m. This is the beginning of disk number three in the continuing deposition of Dr. Alan Whitehouse.
EXAMINATION (Continuing)
BY MR. BERNICK:
Q Dr. Whitehouse, if we -- strike that.
If DLCO were to be included as an alternative basis for qualifying people for severe disabling pleural disease -- I think you've already recognized in response to Mr. Finch's question -- that if that is the only evidence of impairment of lung function, that is, it's really truly an alternative way for people to qualify, that would have the effect of allowing people to qualify where the cause of the lower DLCO was unrelated to asbestos, correct?
A Well, I think that could easily be.
Q How?
A Well, for several -- several reasons. First off, those people have over-disease (sic). Okay?

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They have big exposure histories, generally. They may or may not have some small degree of interstitial disease. They're very limited and that can be proven, with the treadmill or with being on oxygen and hypoxic or whatever the case may be, and ordinarily, most of those people have significant abnormalities in their pulmonary function, although they may not be below 65 percent. They're in that range though, some -- frequently.

So there's very ample diagnostic evidence that that's the source of it, and then if the CTs were looked at, almost all of those people have some pleural fibrosis that you can't see on x-ray and explains their DLCO and it's clearly asbestos related.

Q Yeah, but I'm getting at a different thing.

If this expedited review -- that's what the TDP review speaks to -- expedited review where the submission is done on paper and there are written criteria which if met, you're in, and if you don't meet them, you're not in. That's the -- that's the world that we're operating in.

If you were to make DLCO an alternative measure for the impairment of lung function such that somebody who didn't meet the requirements based upon

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forced vital capacity still could qualify for DLCO, how would you state objective criteria that -- so they could check off that would eliminate the cases where DLCO is reduced for some source, some reason that's not asbestos? How would you do it?

A I don't think it would be difficult at all. You'd basically say that there's pleural disease present. Everybody -- that everybody agrees that there's pleural disease present. They have abnormal pulmonary function. I don't think you have to put it with normal pulmonary function in that situation, but you have to recognize that some of those people will be right around 65 percent.

You could -- this is the one situation where a CT evidence would help you a great deal and then, say, that there's no other obvious reasons for there to be a reduced DLCO.

Q So that's how you would write it?

A I'm not sure exactly how I'd write it. Never even thought about that. But, roughly, I could write something that would cover those people and would protect the TDP from people that don't have significant asbestos disease.

Q And it would be such that somebody, not a doctor, could review it and say --

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A Yeah.

Q -- that's right, it's all set? They wouldn't have to read the CT scan?

A Just a check off and all, yeah.

Q It's not in any of your reports, correct?

A What's that?

Q That's not in any of your reports, is it?

A No, I don't think I've ever put that down on paper. That's the first time anybody's actually asked me that.

Q I asked you.

A You asked me. I could do it and it would be -- I wouldn't want it to be unfair. I mean, you know, I spent -- this is a digression a little bit, but I spent years doing disability evaluations for the State of Washington and was very successful in it because my track record was one of being right in the middle of the road. You know, I wasn't about to go along with somebody that didn't have it, and so it was pretty even. Now, that's not always the case with IME docs, but that's possible to do that and to write it in such a way that it could be done.

Q Let's talk about the Libby data and what the Libby data shows about that. Okay?

As I understand it, there are two basic

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collections of data that are Libby specific and -- are Libby specific and focus on non-malignant disease caused by asbestos.

You have the ATSDR data and then you have the CARD Clinic data; is that right?

A Yes.

Q Now, the ATSDR data, would you agree with me, that ATSDR was an independent organization when they came in to gather that data at Libby?

A You know what I'm going to ask probably about the ATSDR. Are you talking about the original Sullivan study?

Q I'm talking about the original gathering of the data. I'm not here to talk about authors of studies or anything. I'm talking about data. All the questions I'm going to ask you are all about gathering data.

A Oh, okay.

Q The ATS -- the data that the ATSDR gathered, that collection of -- you've got two collections of data, CARD Clinic data, ATSDR clinic -- ATSDR data, right?

A Yeah. You're talking about the x-ray data from the screening --

Q Yes, the screening --

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A -- that one?
Q -- the screening data.
A Right. Okay.
Q So when it came to the -- are you aware of any other basic collection of non-malignant data at Libby beyond the ATSDR and the CARD Clinic?
A No, only insofar as the radiologist in Libby, Steve Becker, who is a reasonably accurate reader as far -- and was part of that reading with the ATSDR, so I guess you'd have to include him in that.
Q Okay. So now the ATSDR data was gathered by people who were independent, correct?
A Yes.
Q The ATSDR data was gathered pursuant to an established protocol that had to be followed the same way for all people, correct?
A I think so, yeah.
Q The ATSDR data is all available to constituencies of people in this case, correct?
A Yes.
Q There are studies that have been published on the ATSDR data, correct?
A That's correct.
Q And the ATSDR data is -- would you agree, representative of the disease picture or pattern in

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Libby?
A We have to be sure what part of that you're talking about and what part of it was published and by whom.
Q Not talking about published, just talking about the data.
The screening data that was gathered, that's a representative collection of data when it comes to representing the pattern or picture of Libby?
A At the time it was, yes, I think so.
Q Okay. Now, with respect to the CARD Clinic, I want to ask you the same kinds of questions.
Would you say that the data was gathered for the CARD Clinic by people who were in all cases independent?
A What do you mean?
Q Didn't have any other agenda.
A I think generally that's true. I think that pulmonary function data and chest x-ray data, which includes Becker's as well as our readings in there, I think was pretty consistent and I don't -- it wasn't biased, I don't think.
Q Well, that's what I'm asking. It wasn't biased?
A Huh-uh. (Answers negatively.)

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Q But when it comes to protocol, there's no protocol that was followed by the CARD Clinic in gathering the data that is in their files, correct?
A Well, yes, there actually is because when the people came in from screening, they took an interval history from them. Some of that was done by nurses. A lot of that is in a database now. They had a new chest x-ray taken. They had pulmonary function taken that the doc saw and there's a dictated note concerning the medical care, so --
Q But that's a --
A -- it closely all followed the same. There's more than one doc, but it was --
Q Different doctors --
A -- similar.
Q -- you know, when it came to the pulmonary function test, how it was administered, was there an absolute set protocol on how the pulmonary function test was to be administered with respect to all people who are part of the CARD Clinic data?
A I think pretty much so. It's pretty much the same protocol that I used in my practice for years. I trained those people up there.
Q Is it written?
A Yeah, certainly.

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Q Where is it written?
A In the -- in the procedure manual for the -- for the -- for the lab.
Q For the lab?
A I don't know where it is, but I know it's up there.
Q Okay. But what about when it comes to taking exposure history? Is there a --
A They don't take the exposure histories. The techs don't.
Q Oh, you mean the CARD Clinic?
A The other people in the CARD Clinic?
Q Yeah.
A Yeah, those are taken both by the --
Q But is there a written protocol?
A Yeah, there is for the nurses. There's a written protocol.
Q Do you know, were those ever made available publically?
A I don't know, but I know that there's a series of forms that they use concerning that. There's both a check list and then things that they can add on in handwriting as well, and that's been used -- and those are in everybody's chart, and they've been used pretty much since the inception of

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the clinic in --
Q What about --
A -- 2000.
Q What about in reading x-rays? Is there one protocol that's been followed in reading all x-rays at the CARD Clinic?
A Probably not. They're all read by -- they were all read by the radiologist at the hospital.
Q But different radiologists?
A No, all the same one, pretty much.
Q All the same one?
A Yeah, he occasionally had to cover it, but not very much. For a long time, I over-read most of the x-rays there --
Q When you read --
A -- but not anymore.
Q I'm sorry.
When you read the x-rays, you didn't read them always according to the ILO classifications?
A Oh, no, never did.
Q Well, that's what I'm saying.
There wasn't one procedure that was followed by the radiologist in reading the x-rays, fair?
A As far as ILO is concerned, no, we didn't use ILO at all.

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Q Okay. And when it comes to how the different radiologists read the x-rays, we know that you often read the x-rays somewhat differently than Dr. Becker, correct?
A Not nearly as often as you might think.
Q I didn't ask you that. I said just --
A Occasionally.
Q -- often.
A Occasionally, I did, yes.
Q In fact, you had some critical things to say about Dr. Becker's readings?
A I did early on, not -- not recently.
Q But that wouldn't -- that would still affect the data that the CARD Clinic has, that is, you don't have the same degree of uniformity in the data from the CARD Clinic as you do in the data from the ATSDR, correct?
A Oh, I think -- I think we've got very good data.
Q Didn't say that.
It's not as consistent. If you're looking for consistency, it's not as consistent as ATSDR, correct?
MR. LEWIS: I'm going -- I'm going to object as to the word consistent because that -- that

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is a very vague term. I think your prior question I wouldn't object to, but you're talking -- go ahead.
A Well, the ATSDR was running the Masa* Clinic which is the Montana -- the money that came through the State of Montana couldn't come directly to it, and they were running that for quite a while and they had a variety of people that were working there, one of whom we know was, you know, just -- I don't know how to put it, but I know darn well we didn't get good data from that person at all and that went into the database, I'm sure, and ATSDR's database.
But almost all the stuff that's in the charts that's been filtered by a number of people to get -- make sure that we have accuracy, and in that sense, it's pretty much a consistent protocol for doing everything. Probably better than most any clinic that you'd see.
Q (By Mr. Bernick) When it comes to the availability of information from the CARD Clinic, I think you would agree that almost half of the medical information with respect to people who have been seen at the CARD Clinic is, in fact, not available publically or to the people in this case, correct?
A Well, right now -- well, it is available now. I mean, everything is pretty much available. The

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problem is that there's this huge database that they've been putting stuff into and nobody that's able to extract it out.
Q Okay. Well, that's really what I'm kind of getting at.
In this case what we have seen out of the CARD Clinic is --
MR. BERNICK: Is that the 850 or the 950?
MR. FINCH: It's the 950, plus a handful of other people. It's on Exhibit-2-A.
Q (By Mr. Bernick) So when it comes to the data from the CARD Clinic, certainly, parties to this case do not have all of the data from the CARD Clinic, indeed, a huge portion of the data from the CARD Clinic is not available in this case, correct?
A I think that's probably true, yeah. It hasn't been as yet.
Q And certainly there --
A You do have all the charts now, right? Yeah, you've got every one of them at one time or another from my understanding is that -- that there was some significant problems in mislabeling and that you didn't know what you had for a while because the numbers were mislabeled, but you at one point had

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copies of all the 950 people.
Q I'm not talking about the 950. I'm talking about the 1,800. Let's be clear.
The CARD Clinic data goes way beyond the 900, 950, correct?
A That's true.
Q And all that's been made available in this case is the 950 or thereabouts, correct?
A And that's basically all I've been talking about is those 950.
Q Well, again, I'm just establishing, Dr. Whitehouse, that in contrast to the ATSDR data which is all available with respect to the CARD Clinic, almost half the data is not available in this case, correct?
A Yeah, and that's true, and basically the reasons for it is HIPAA laws.
Q I didn't --
A Well, they're the HIPAA laws.
Q Well, I'm not blaming you for --
(Simultaneous talking.)
Q (By Mr. Bernick) I'm not blaming you for it. I'm just saying it's --
A Oh, it's not my fault anyway regardless.
Q Right. It's a fact that it's not available

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in this case, correct?
A But I think that you have to realize that we are under the constraints of the HIPAA laws, probably more than most people are because we are a clinic that's in many respects federally funded or is getting to be federally funded, so --
Q Which you'd also agree --
A -- there's a great deal of care about that.
Q Would you also agree with me that there are no studies with respect -- published studies with respect to the 1,800 patients diagnosed in the CARD Clinic?
A There are not.
Q Would you also agree with me that you don't know -- strike that.
When it comes to the CARD Clinic data, you've made reference to all these databases. How many databases are maintained at the CARD Clinic with respect to people who would have been diagnosed with asbestos-related illness?
A It's basically two, the chart and then there is a database that the EPA has put together which data has been entered into for about the last year and a half including back data, and my understanding is that they are now caught up with everybody in

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there they're entering.
Q What's the difference between the two databases?
A Well, the chart is all right there, x-ray reports, things like that. It hasn't been put into a database. What they do is they use that, plus the patient interview and then put into the database when the patient comes in.
Q So we have two databases?
A Well, you asked me about a database. It's a database. It's not organized in a computer or anything, but that's where the data is.
Q Okay.
A So it's in the charts.
Q But I misunderstood.
So you have all the charts?
A I have all the charts.
Q And those are paper records for everybody who's come through CARD?
A Mm-hm. (Answers affirmatively.)
Q You have to respond orally.
A Yes.
Q Okay. When I ask about databases, I'm talking about compilations or collections of information electronically.

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Are there any electronic databases containing the CARD Clinic data?
A There is, concerning all the patients.
Q Concerning all the patients?
A To my knowledge.
Q Okay. And who -- and who -- is that the one the EPA has done?
A Well, the EPA set it up, but it's now our database.
Q Okay. And that database includes all the people who have come through the CARD Clinic ever or just the people that have come through the CARD Clinic in the last eighteen months?
A It should, to my knowledge, include everybody including the people that are normal.
Q Okay. Does it include all the people who have ever come through the CARD Clinic, the historical patients?
A I think so.
Q Okay. Does --
A I can't answer your question.
Q Does it include all the information that's in the charts?
A I hope it does.
Q So it literally is supposed to be everything?

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A It's literally supposed to be all the pertinent data and there's some other stuff in there like social studies and things like that that may not be in there, but for all the pertinent data concerning their asbestosis, it's in there.

Q Okay. Do you have access to this database?

A Probably.

Q Okay. Who else has access to the database?

A I would guess Brad Black* and I know Steve Levine* knows it, Mount Sinai, who's one of the people who's out there fairly frequently, and several of the nurses would have access to it.

Nobody -- to explain this. Nobody has done anything about this because we haven't even had -- we barely have enough money to keep that place open much less spend a lot of time with people doing database, so we will have it because we just got some pretty decent sized grants that will allow us to do that, but you have to realize that we were dependent on Grace for money to keep that place running and Grace wasn't providing it.

Q So have you -- strike that.

Have you had access to that database for anything that you've done in connection with this case?

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A Would I?

Q Have you.

A Have I? I have not accessed it. I assume that I can.

Q What about Dr. Frank?

A No, probably not because he's not really a member of the CARD staff which I am, of course.

Q And certainly that database has not been available -- the electronic database has not been made available to the parties in this case, correct?

A I don't think it's been used except to collect the data for the present time.

Q Well --

A But I think it's up to date and I think it's got a lot of data in it, but I don't know when it's going to be accessed. Probably in the next year when the EPA -- when it comes in.

Q If there were -- if there is a unique form of diffuse pleural thickening that's evident in people in Libby, should we be able to see it if we study the ATSDR screening data?

A No.

Q Just not apparent at all?

A Won't be apparent unless you follow people longitudinally and you have physician input, but there's no physician input to the ATSDR screening.

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Q Okay. Likewise, if we look at the CARD information, would you say that there's no way to see any unique form of diffuse pleural thickening at Libby unless you have access to the details of the charts?

A Well, first off, I object to your term unique which is something that Grace has managed to --

Q Well, I'll withdraw the -- I'll withdraw.

A Let's leave that word out of it because it's not unique.

Q Okay. Well, then let me -- that's fair. Let me then ask you the question.

Dr. Frank has told us under oath that he does not believe that there is a different disease or a special disease or form of disease, pleural disease in Libby. It's just the same disease. Would you agree with that?

A Well, I would agree that it's basically the same disease that has been occasionally seen in chrysotile, but the frequency of it and the predominance of it and the progression of it to death is different.

Q And we're going to pursue that, but I want to peel this off layer by layer. We're going to take each one of those layers and peel it off and distinguish it.

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So let's begin -- recognizing what you just said, let's begin with how diffuse pleural thickening, severe diffuse pleural thickening -- that's the only kind of pleural thickening I want to talk about -- severe diffuse pleural disease. Let's talk about how it presents itself --

A Okay.

Q -- in Libby, and I want -- what I want to know is: In the objective presentation of severe diffuse pleural thickening at Libby, tell me whether and how it is different from diffuse pleural thickening, severe, outside of Libby.

MR. LEWIS: Object to the form of the question.

A Rarely had I ever seen diffuse severe pleural thickening outside of Libby. I know it's described. People have seen it. It's been reported. Pleural deaths have been reported.

As I mentioned before, the rapidity of its progression as part of it, that's clear to me, and progression on to death which is rarely ever described and we've had a number of those, and then the other factor, I think, that we haven't even

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discussed is the fact that a number of people have extremely severe functional abnormalities in pulmonary function, but pleural thickening is not that thick, and that basically it's two to three millimeters in thickness, but is everywhere and results in incredibly severe physiologic consequences. That's one of the things we saw in that mortality study is people that died from that, of pleural thickening, so I don't know if that answers your question now, but --

Q (By Mr. Bernick) Yeah, it does.

A -- those are the differences.

Q It does. That's fine.

When you think about how the Libby pleural disease, severe pleural disease is different, those are the three things that you would recite: The fact of the rapidity of progression, progression to death, and the fact that in some cases the pleural thickness is not as pronounced as you would see outside of Libby?

A Yes.

Q Okay. Now, of all of those, we're going to take -- we'll just take them separately, so I want to put to one side now rapidity of progression and progression to death and just talk about the one that

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you've identified which says you can have severe pleural disease at Libby without that much thickness, but -- without that much thickening of the pleura.

A Yes.

Q That is a difference that you point to that would say the disease in Libby presents itself somewhat differently in that respect from the disease outside of Libby, fair?

A Yes.

Q That's really what I want to talk about.

First issue is: Is the disease presenting itself differently inside and outside Libby, and the one thing you've identified is that inside Libby people with increased thickness but not that much can still have severe impairment, fair?

A That's fair, but there's one other thing I didn't -- I didn't say in that and I probably should have and that is preponderance of what we see is pleural disease with much, much less interstitial disease.

Q Well, I --

A And that's a real difference from what -- what's seen in chrysotile disease.

Q No, no. I'm talking about the presentation of the pleural disease, not the interstitial disease,

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the pleural disease.

A Okay. Well, you're -- in a sense though, you're asking me about the differences that Libby has and that's one of the differences.

Q Well, but if somebody has diffuse pleural thickening, severe diffuse pleural thickening outside of Libby, they can have that with or without interstitial involvement at all?

A That's true except it is much less common than it is at Libby.

Q But that --

A That's not the point.

Q -- has nothing to do with the presentation.

A What's that?

Q That is to say, for somebody who has diffuse pleural thickening outside of Libby, there are characteristics of the thickening of the pleural, you know, blunting of the angle, et cetera, including impairment, there's a presentation that it has diffuse pleural thickening as defined outside of Libby without reference to interstitial involvement, correct?

A Yeah, it is uncommon, but, yes.

Q Well, but, no. The description -- any definition, any established definition of diffuse

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pleural thickening, severe diffuse pleural thickening outside of Libby contains no reference to whether there's interstitial fibrosis, correct?

A It may, yes.

Q No, it doesn't may.

Can you tell me of anybody who's defined diffuse pleural thickening outside of Libby who includes in that definition interstitial fibrosis?

A Oh, in the definition or --

Q Okay.

A -- in the observation of the patient?

Q I didn't --

A The definition of diffuse pleural thickening --

(Simultaneous talking.)

Q (By Mr. Bernick) The definition of diffuse pleural thickening in patients outside of Libby makes no reference --

A No, it doesn't include -- no, it doesn't include interstitial disease. No, it wouldn't. There's no reason why it would.

Q Right.

And the definition of diffuse pleural thickening inside of Libby, the one that you like, doesn't include interstitial involvement, correct?

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A No.
Q Am I right about that?
A That's right.
Q Okay. So if we're comparing diffuse pleural thickening inside/outside Libby in its presentation for diagnostic purposes, your only observation of the difference is that outside of Libby, there's a greater thickness in the pleural that's reported, inside of Libby, you've observed severe diffuse pleural thickening without that much thickening in the pleura, fair?
A That's true, but there's -- you know, you can't consider that by itself. There's another aspect to this that we haven't even talked about, exposure history. We're talking about people with fairly severe pleural thickening or --
Q I'm talking --
(Simultaneous talking.)
Q (By Mr. Bernick) That's why we really have to peel this thing. I'm trying to be very systematic about it. Okay? I'm talking about the presentation when there's a diagnosis done based upon a presentation.
A That's part of it. See, the presentation that we see in the clinic includes the most important

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aspects of it or the hallmarks of a diagnosis of asbestos disease. The exposure history. Okay? The physical exam. What the x-ray looks like. What the pulmonary functions look like. Those are all important --
Q All I'm --
(Simultaneous talking.)
Q (By Mr. Bernick) Okay. In the presentation, now you've identified that you can have severe pleural disease with not so much thickness in the pleura. That's one thing --
A Right.
Q -- that you would distinguish, right?
A Right.
Q And now you're saying another thing you would distinguish in the presentation is that the exposures in Libby associated with diffuse pleural disease are less?
A As best we can tell, they can be very low exposures and still result in severe pleural disease.
Q Do we now have the difference in presentation in severe pleural disease at Libby versus outside, that is, thickness and history of exposure?
A Those are two that are important, yes.
Q Well, I just want to know. Is there -- this

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is your opportunity. I want to be totally fair with you. I'm going to go through these very carefully.
A Well, let's go -- let's go on further then. The other thing is that a large majority of people that have diffuse pleural thickening do not have blunting --
Q I didn't --
A -- of the costophrenic angle. That's a difference in the presentation also.
Q Well, no, but -- no, because you have people with diffuse -- lots of people with diffuse pleural thickening outside of Libby without blunting of the costophrenic angle. We just established that.
A Not to that extent.
Q Well, and the fact that you told me they're exactly the same proportion outside and inside of Libby.
A No, I didn't give you -- you didn't hear me say that. We were talking about the fact -- no, you didn't hear me say that. You misunderstood what I said or I misspoke, one or the other.
The presence of -- we have -- approximately half of our people with diffuse pleural thickening that have severe impairment do not have blunting of the costophrenic angle.

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Q That's exactly what you said of McCloud. That's why they were the same.
A Oh, no, McCloud was referring to the fact that in his study that he did of diffuse pleural thickening, you're right about that in the sense that only 50 percent had pleural thickening. There's other studies since then that have shown more.
McCloud has demonstrated that you can have diffuse pleural thickening like we have without much in the way of blunting. What the --
Q And impairment --
A -- TDP is saying and what the 2004 and the ILO is saying, that no, no --
Q No, no, no.
A -- diffuse pleural thickening doesn't exist unless there's a blunted angle.
Q You're -- we're --
A That's a very --
Q -- again meandering from --
A -- big difference. I'm not meandering. That cuts to --
Q Dr. Whitehouse, let's go back --
A -- the heart of the matter.
Q That's fine. We'll go back to question and answer.

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The gentleman over here is not going to be able to verify what --

A Yeah, I'm not asking him to verify anything at all.

Q Well, no, you're looking over there like there's going to be some kind of wisdom, as there always is from that side of the room.

MR. LEWIS: Now, Counsel, just wait a second. That's out of line. The doctor glanced at me. He's not glanced at me at any other time during this deposition.

MR. BERNICK: I know. That's why --

MR. LEWIS: You're reading something into that.

MR. BERNICK: That's why it was notable.

MR. LEWIS: And putting it on the record, that's totally improper. Why don't you just ask your questions and he'll answer them. Okay?

Q (By Mr. Bernick) Dr. Whitehouse --

MR. LEWIS: You don't need to comment on this side of the table or anything.

Q (By Mr. Bernick) Dr. --

MR. LEWIS: We've got everything on video, so just do your job.

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MR. BERNICK: Thank you. Are you done? Done? Okay.

Q (By Mr. Bernick) Dr. Whitehouse, presentation, you say that severe pleural -- diffuse pleural thickening at Libby differs in presentation in that you have people who are -- have got severe pleural thickening even though the thickness of the pleura is not as pronounced as it would be outside of Libby?

A They have severe physiologic impairment even though the thickness of the pleura is less than you might expect but is diffuse --

Q Okay.

A -- is what I said.

Q And another thing you said was different in presentation is that they have lower exposure than people outside of Libby?

A As best we can tell, that's true.

Q And then you further said that the frequent -- the proportion of the people who do not have blunting of the costophrenic angle is greater?

A Yeah, it's greater than what is being required by the TDP. This is requiring 100 percent to call it diffuse pleural thickening, and what we're saying is it exists without that.

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Q I understand that, but that's not my issue. My issue -- my question is not directed at the TDP. It's directed at the presentation of the disease.

When it comes to the presentation of the disease, you say the disease presents itself differently at Libby and outside of Libby when it comes to the thickness of the -- the thickening -- extent of the thickening, less exposure at Libby, and lower frequency of blunting of the costophrenic angle?

MR. LEWIS: Objection. Compound.

Q (By Mr. Bernick) Did I get that list right?

MR. LEWIS: And object to the form.

A What's that?

Q (By Mr. Bernick) Did I get the list right?

A Yeah, that is amongst some other things.

Q No, no, no. You keep on going amongst some other things. This is not -- this is not a question, Dr. Whitehouse, I'm just asking you -- you've been involved in this for a long time and I'm giving you the latitude -- and none of this is in your report. I'm giving you the latitude, so --

A It is in the report.

Q -- I'm asking you -- and I'm going to ask now for the underpinning for each one of these things, so

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this is not just, okay, here's what -- I'm going to ask you for the data and the analysis that drives every single one of these things. That's where I'm going. Okay?

So when it comes purely to presentation, you tell me the people, the individual people that you have diagnosed or that you have seen the diagnosis of at Libby who present with severe diffuse pleural thickening, but have a lesser thickness in the pleura than what you have seen -- what has been seen outside of Libby.

MR. LEWIS: I object to the form of --

Q (By Mr. Bernick) Who are those people?

MR. LEWIS: I object to the form of the question. I object to assuming facts not in evidence. I object to the compound nature of the question.

Q (By Mr. Bernick) Okay. I want to know who those people are.

A I can't give you the names right off the top of my head. I could give you the mortality study.

Q No, no, I don't want that.

A Those people are in that study.

Q I want to know --

MR. LEWIS: Object. Object to you

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arguing with the witness. Just ask your questions. Don't stop him in the middle of his answer and say no, no, no, no, no, no, no, no. That's not a proper function.

MR. BERNICK: You're just making it worse.

MR. LEWIS: I'm not making it worse.

MR. BERNICK: Yes, you are.

MR. LEWIS: I just want you to ask a question of the witness without making some preparatory --

MR. BERNICK: We're at the point --

MR. LEWIS: -- statement.

Q (By Mr. Bernick) We're at the point, Dr. Whitehouse, and, Counsel, where it's now time to find out the data that drives the opinion. That's what I'm doing.

MR. LEWIS: Just ask your question.

MR. BERNICK: I'm going to ask -- I'm -- I'm -- just --

MR. LEWIS: Just ask your question.

MR. BERNICK: Cool down.

MR. LEWIS: I'm calm.

MR. BERNICK: No, you're not. You're popping up and down all over the place.

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MR. LEWIS: Counsel --

Q (By Mr. Bernick) Dr. --

MR. LEWIS: Counsel, that's enough of that. If you keep doing stuff like that, you know --

MR. BERNICK: It's true though. You've just got to keep your seat.

MR. LEWIS: I haven't left my seat. Okay?

MR. BERNICK: Yeah.

Q (By Mr. Bernick) And so, Dr. Whitehouse --

MR. LEWIS: Wait a second. Wait a second.

MR. BERNICK: You're going to prevent me from asking the question now?

MR. LEWIS: Well, just -- I just want you to ask questions and stop making comments on what everybody is doing in the room. Just do your job and ask your questions and don't make speeches in each of your questions.

Q (By Mr. Bernick) Dr. Whitehouse, I want you to identify to me the specific patients in some fashion by reference to some document, some piece of paper, the specific patients who you say at Libby had presented with severe diffuse pleural thickening even though the thickness of their pleura is less than

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what has been reported in the literature outside of Libby.

A I have in that -- now, you're going to have to listen to this. Okay? I have --

Q As long as the response -- as long as you answer the question, I'll be happy to listen.

A I can't give you a name off the top of my head. I've got 79 patients in there, some of whom may have thin pleural thickening, some of whom -- or half of whom don't have blunted angles, and I'd have to go through every single one of those charts in order to define which one of those are because I don't have it defined in the cheat sheets that I've got with me here.

They have numbers on them. I have patients' names of all those people, plus I have initials for the ones that are protected because they're not -- you know, they're not people that are claimants, but I can't go give you a single name out of there. There's no way I can do that. That's an unreasonable request.

Q Dr. Whitehouse, with due respect, that's not something that you're going to be deciding. The judge is going to decide it. All I -- I have one job which is to find out what your opinions are and what

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the basis is.

So you've offered an opinion that says the people that you've seen at Libby with severe diffuse pleural thickening are different because they have thin -- thinner pleuras, right?

A That's part of it.

Q That's --

A That's only one.

Q That's the first one.

And so I now want to know the data, the specific data that you're referring to, and as I understand it, that data is within the medical histories of some of the 79; is that fair?

A It's also on that sheet that was the summary sheet that you have. There's one in your exhibits.

Q The data -- the data that shows the thinness is with respect to some group within the 79; is that right?

A That sheet has on it the number of people that have that kind of pleural thickening on it.

Q No, that sheet --

A They're already separated out.

Q The counting sheet, no. The counting sheet is just a counting sheet. It doesn't tell me who those people are.

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A There's no way I can tell you here today. Okay?
Q Let's be clear --
A You give me the chart --
Q Just -- Dr. Whitehouse --
A -- and I'll tell you which ones they are.
Q Just -- just take it a step at a time. I want to do this very systematically.
We're on the point of the difference in presentation that has to do with thinness. That was one of your comments. The source of your data, your data to support that comes from patient histories, fair?
A True.
Q And particular patient histories that are the source of that opinion that show that data, the particular patient histories are within the 79 people that you have grouped within the mortality study, correct?
A You -- you have --
Q Could you just answer that question?
A No, I'm going to answer your --
Q Don't --
A No, you're going to let me finish my question (sic) here.

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Q No, no, no.
A Yes, you are right now.
Q No.
A You're going to let me --
MR. LEWIS: Dr. Whitehouse, let -- can we take a break?
MR. BERNICK: You can absolutely take a break.
MR. LEWIS: He's going to ask the same question when he comes back, but let's just take a break and cool down here. I think it'd be a good --
MR. BERNICK: Sure.
MR. LEWIS: -- thing to do.
MR. BERNICK: Good.
THE VIDEOGRAPHER: We're going off the record. The time is now 1:56 p.m.
(Recess.)
THE VIDEOGRAPHER: We're back on the record. The time is now 2:02 p.m.
EXAMINATION (Continuing)
BY MR. BERNICK:
Q So, Dr. Whitehouse, we're on the first difference that you've pointed out in the presentation of severe diffuse pleural thickening in Libby versus elsewhere which is the thinness of the

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pleura where people still are -- have severe impairment, and I asked you the data, the source material that you have when you say that that difference has been observed at Libby.
A You actually have the data. You were given yellow spreadsheets, a very large spreadsheet that's about six pages taped together which has on it all the measurement data of the pleura and the extent of the data for every one of the people that died in the mortality study.
Q Well, that's -- that may or may not -- I honestly don't know, Dr. Whitehouse.
A Yeah, you were given it.
Q Well --
A I asked that specifically of the attorneys before this deposition to make sure that you did have that.
Q My question to you is: I'm assuming then that the data that you're now saying supports your opinion comes from the mortality study; is that correct?
A Well, that's the numbers that we've actually measured, although it also comes from my experience with dealing with all these people in the clinic with all these people in the clinic.

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Q Are they the same people?
A Some of them are or not really because most of those are dead that are in the mortality study. Obviously, they've been dead over the last eight or ten years, but a lot of it also comes from patients that I see on a regular basis.
Q Which patients?
A You know, when you're in private practice and you have a large body of --
Q Dr. Whitehouse --
A -- patients --
Q With due respect --
A -- that's where you get your information.
Q With due respect, I'm just asking a factual question. You don't have to give me any explanation about what your practice is like or anything. It may or may not be relevant. I'm interested in where the data comes from. You've now told me that there's data from people in the mortality study, the 79, correct?
A Yes.
Q And you've now also told me that this particular difference has been noted in your practice in people who are not in the mortality study, correct?

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A People that are still alive.
Q Right.
And so if I want the data, I need to know who those people are.
A I cannot identify those people. You can identify the ones in the mortality study which all have measurements very readily because you do have all that data.
Q Now, let's talk about the people who are in the mortality study that you just had reference to.
The people in the mortality study, I need to know which ones of the people in the mortality study you particularly look to in saying that people in the mortality study show severe diffuse pleural thickening with less than the thickness that's observed in the literature. You need to tell me who those are. I don't know who you would consider to have a thin -- thinner pleura than what's reported in the literature and I don't -- hang on -- and I don't know which ones of those people you say are also severely impaired, so I need to know who they are. Who are they?
A I cannot provide that data to you except on those spreadsheets that were provided to you that were supposedly going to be brought to this

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deposition.
MR. BERNICK: Are you aware of --
MR. LEWIS: Yeah, we gave them to you at the start of this deposition. You weren't here, Counsel. Your co-counsel has had them all along.
MR. BERNICK: No, no, no. This looks nothing like that at all.
MR. LEWIS: I don't know that that's the one we're talking about though. That's not the one with the measurements on it.
MR. LONGOSZ: That's what he gave us at the start of the dep.
MR. LEWIS: That's not the one with the measurements on it.
Q (By Mr. Bernick) So we're clear, Dr. Whitehouse, this exhibit which is -- I don't know what it was marked as, but it was Final Key Libby Patients, the document that was given to us at the outset of the deposition has a list of people. There are a total of over 900 people. It does not contain the information that you and I were just talking about, fair?
A No, it does not, no.
Q Okay. So this yellow spreadsheet --
MR. BERNICK: Nate, have you ever heard

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of the yellow spreadsheet?
MR. FINCH: I don't know about the yellow spreadsheet. Dr. Whitehouse has produced a lot of stuff. Whether it was in that, God only knows.
MS. BLOOM: Does it have yellow markings on it?
MR. FINCH: Yellow markings on it?
THE WITNESS: Ah-ha, there it is.
MR. LEWIS: Come on.
THE WITNESS: It may not be yellow, but --
MR. LEWIS: Let's --
THE WITNESS: Excuse me. I'm sorry.
Q (By Mr. Bernick) Okay. This has been marked before. This is the 76 mortality CH -- I'll mark this.
(Exhibit-15 marked for identification.)
Q (By Mr. Bernick) Does Exhibit-15 contain the data that you're talking about?
A Well, it's going to -- yes, it does.
Q Okay. So I --
A It's got -- it's got the measurements of the pleura on it, but they're not in a --

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Q Is this --
A -- longitudinal form.
Q Well, just so we're clear, is Exhibit-15 the yellow spreadsheet that would reflect the data that you have referred to just now in your testimony?
A Yeah, all the ones that I've seen were yellow. This, obviously, is not, but this is the spreadsheet.
Q Okay. So why don't you just tell me the people on the spreadsheet who you say have thinner pleura but still severe diffuse pleural thickening?
MR. LEWIS: Excuse me, Counsel. May I have a copy, please?
MR. BERNICK: Yeah, sure. (Document passed.)
MR. LEWIS: Thank you kindly.
MR. BERNICK: Sure.
(Ms. Rickards returns from recess.)
A Can I take this apart with a staple remover --
Q (By Mr. Bernick) Sure.
A -- so I can just match it up? I have to match the names here. Okay. The first one is the initials which is --

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Q Just mark it off. Just mark it off with a one. One indicating all -- one will indicate the people who you say show --

MR. LEWIS: Well, they're numbered. Can he just go through and just give the numbers?

MR. BERNICK: No, he -- if -- if -- yeah, he can go --

Q (By Mr. Bernick) Or you can go through and give me a list of numbers. Whatever is easier for you.

A The best thing to do is to circle the ones.

Q Okay. Circle it, but I want -- then we're going to use a star on the next difference and -- I'm serious. I really want --

MR. FINCH: And then a smiley face on the next difference.

MR. BERNICK: Yeah, that's right.

A Well, they're different columns, so it's --

Q (By Mr. Bernick) I understand.

A There shouldn't be an overlap.

Q First question are those people you say have a different presentation of diffuse pleural thickening in Libby versus outside of Libby by reason of thickness.

A So I'm just going to circle the ones -- out here in the side or do you want me to circle the names?

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Q You can circle the numbers is fine.

A All right.

Q As long as the name is right.

A May I ask a question?

Q Sure.

A Since the criteria is three millimeters, shall I circle everything that's under three?

Q No, no, no, no, no. We're not -- I'm glad you put that -- the question is very simple. You say that the people in Libby present differently with severe diffuse pleural thickening because the pleura are not as thick as what would be observed outside. Whoever it is that's picked up in that difference in your mind is the basis for your opinion, you circle, and then we'll get into further questioning.

A All right. I'm only going to mark these names. I'm not quite sure how to do this exactly because I'm only going to mark the names if they have minimal or no interstitial disease. Fair enough?

Q If that's what you --

MR. LEWIS: Just -- just -- Doctor, you need to just answer the question that the attorney has asked.

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THE WITNESS: Well, he's --

MR. LEWIS: He hasn't asked anything about interstitial disease as far as I know.

THE WITNESS: No, but he's asking for circling of ones that presented with just pleural -- thin pleural thickening and I don't want to then mark somebody that meets their criteria that has severe -- might have interstitial disease. Is that right or not?

MR. LEWIS: Well, that's not what he asked as I understand, but do the best you can.

THE WITNESS: All right.

Q (By Mr. Bernick) I asked you for difference of presentation, diffuse pleural thickness. That's what I'm assuming you're marking.

A And that's why I said that I didn't want to mark the ones that had --

Q I understand.

A -- interstitial --

MR. LEWIS: Well, I think he -- is the question regardless of interstitial disease or -- I think that's the confusion.

MR. BERNICK: The question is the same question that I started out with.

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MR. LEWIS: All right.

MR. BERNICK: When he says there's a different presentation because of thickness, who is he referring to?

MR. LEWIS: Right.

Q (By Mr. Bernick) Got it?

A Well, the only problem is as I mentioned to you before -- yeah, I do have that. The only problem is that I don't know whether there's any crossover in people that actually presented -- just by looking at that, presented with interstitial disease or may have it now and that's why I'm wondering whether I should eliminate some of these. That's what I was trying to tell you a minute ago.

Q Why don't you put down a key in your own words at the top right-hand portion of the first page of Exhibit-15 and say -- just say circle equals.

A Okay.

Q Say circle equals --

A I'll just say thin pleural thickening. It doesn't say anything about interstitial disease. Okay?

Q So the circle -- so the record is clear, the circled people that you've now put on -15 are those people that you say present differently with severe

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diffuse pleural thickening because their pleura is thinner than what is reported in the literature; is that fair?

A That's fair except that the one problem with this is if they do have significant interstitial disease, they may have presented with that and that may be a major factor in that the pleural thickening is not necessarily the biggest factor.

Q So now put -- next to the people who you think may be presenting with significant interstitial disease as those circled people who may have significant interstitial disease, just put a check next to those boxes.

A All right. That's what I was getting at before.

Q Okay.

A So I'm only going to check 1/1s or more or what do you want? 2/1s? You want the criteria for --

Q Well, whatever you would think to be the appropriate measure of there being some significant interstitial disease. I think that -- whatever you would use.

A All right. If I can just get these lines at the bottom to match up. I'll make that clearer. Oh,

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wait a minute. That's the wrong one. Damn it.

Q You can scratch it off.

A It's hard to see across here even though there's a crosshatch area in here.

Q I've noticed.

A That's this one here. Here we go. Oh, I guess that's the best I can tell.

Q Okay. So --

A That check is equal to IF -- equal to 1/2 or greater. I think that's what I've got.

Q 1 what?

A 1/2.

Q 1/2?

A Well, 1/2, ILO 1/2. We've got 1/1s.

Q I know, but --

A How significant do you want it? I guess that's the --

Q Well, I don't know. I mean the question -- it's really up to you. This is --

A Are we --

Q This is all by way of comparison, Dr. Whitehouse. We want to know people who present at Libby differently from people who present outside of Libby.

A All right.

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Q Because you're saying that they present differently at Libby because they have thinner pleura and they're still impaired, and what you said is that there's a complication in those cases where people have interstitial disease as well, correct?

A Yeah, and I'm going to check the -- I'm going to check the ones that I consider to be significant disease, but most of these are 1/0s or 0/1s.

Q Right. So --

A And I hope I don't miss any because it's conceivable I might miss one.

Q So what are -- you've got circled the ones that have the thin membranes --

A Yeah.

Q -- thin pleura, and you're now putting a check mark next to those of them that also have interstitial disease?

A Right.

Q Okay. And what's your criteria for interstitial --

A Well, I'm just using 1/2, but I would use 1/1 if that's what you prefer.

Q Well, whatever it is that you think is the marker of significant interstitial disease.

A Well, I think the marker --

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Q If you notice on the TDP, significant interstitial disease all requires -- all it requires is 1/0.

A Well, then, if you want me to use -- is that all or is there 1/1?

Q No, no, for the TDP that qualifies having interstitial disease, it's 1/0.

A All right. I'll do 1/0s then.

MR. BERNICK: Is that right?

MR. FINCH: It's for everything but the most severe category, yeah.

MR. LEWIS: The severe category is 2/1, right?

MR. BERNICK: That's the most severe.

MR. FINCH: That's the most severe.

MR. BERNICK: Four is 1/0.

MR. FINCH: Category three is 1/0.

MR. BERNICK: Three is 1/0.

A God, whether this is right or not, who knows. I'm sure you'll sort it out. Well, let you figure that one out.

Q (By Mr. Bernick) I'm not sure -- you make sure your key is -- go back one --

A I left the key as 1/0.

Q Okay. So now you tell us on the record on

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Exhibit-15 -- I haven't even looked at what you've marked off. You tell us what you have done with Exhibit-15 in order to elucidate the different presentation of diffuse pleural thickening, severe diffuse pleural thickening at Libby versus outside of Libby.

A Well, I've got seven or eight. Is that an eighth one? Yes, I have eight people here.

Q And those eight people are noted or marked --

A Out of the mortality study that have thin pleural thickening and ILOs 1/0 or less.

Q 1/0 or less?

A Yeah.

Q So you would say that anybody --

A Wait a minute. 1/0 or greater I checked and then the ones that are less than that are 0/1 or less are the ones that are -- they're not checked and there's -- let's see. One, two, three, four, five, six, seven -- eight of them.

Q Okay. So there are eight people that you've marked with plan circles on Exhibit-15?

A Mm-hm. (Answers affirmatively.)

Q And they represent people who illustrate or the basis for your saying that diffuse -- severe diffuse pleural thickening at Libby presents

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differently from outside of Libby in that the membranes or the pleura are thinner, fair?

A That's -- that's part of it, but, yes.

Q Okay. Now, the other difference that you've pointed to in presentation is that people at Libby with severe diffuse pleural thickening with less exposure history?

A Yes.

Q Could you please mark -- is the basis for that difference, again, your observations with respect to the 79 people in the CARD mortality study?

A Well, you know, community members would be the most likely situation, but that's a little hard to do without actually having the chart.

Q Okay. Well, I'm just asking you the second -- the second difference that you pointed out which has to do with exposure, is the source of that difference, the opinion about that difference your 79 people in the CARD study?

A Mm-hm. (Answers affirmatively.)

Q You have to respond orally.

A Yes.

Q And can you identify those people using Exhibit-15 or not?

A Well, I can -- I can demonstrate all the ones

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that had only community exposure. Okay? Which is going to be the ones with low exposure.

Q Okay. Well, then put an E next to those.

A Why don't I just circle the C?

Q I'm sorry?

A Want me to circle the Cs?

Q Circle the Cs?

A Where it says exposure.

Q Where it says exposure? Oh, I see, yeah.

A I just circled where it had C on them --

Q Well, whatever --

A -- but not the family member ones because there are some that are a question of whether it's a family member or not.

Q Okay. So before you do that, let's just think this thing through so we've got a question and answer and we don't do it more than once, Dr. Whitehouse.

I want people who are presenting with severe diffuse pleural thickening, severe diffuse pleural thickening --

A Okay.

Q -- with what you say is a lower exposure than what has been reported in the literature.

A Okay. So I'll circle the ones that are Cs

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and then I'll put a star next to those or an X next to them if they have severe disease. Is that what you want me to do?

Q Yeah, I want only the ones that you say have diffuse -- severe diffuse -- severe diffuse pleural thickening with low exposure. Are you with me?

A I'm with you.

Q Okay.

A Where shall I put the X here? That will work, right there. Okay? It looks like we've got about another -- it looks like there's no crossover here. One, two, three, four, five, six, seven, eight, nine, ten -- eleven of them that are community exposure.

Q So wait. So what you've now done is defined the people with community exposures, right?

A Mm-hm, mm-hm.

Q But are these people now with community exposure and severe diffuse pleural thickening?

A As best I can tell, yeah, from the numbers that I have here.

Q Okay. And do they also have -- do they have -- do they not have interstitial disease?

A Well, I'd have to go back and look at it again then because I don't know which ones do have

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the interstitial disease.
Q Well, then check that out because I want people, again, who have diffuse -- severe diffuse pleural thickening with the impairment and the differences that they have low exposure because that's what you said your second difference was.
A Where is the interstitial disease?
MR. FINCH: On the third page.
A Oh, here it is. Well, I don't know what kind of -- we'll use a star.
Q (By Mr. Bernick) A star is going to represent what?
A Interstitial disease.
Q Okay.
A Okay. I think that's it.
Q Okay. So what have you now marked off?
A Eight of those. How many do we have all altogether did I say? Doesn't seem to be much crossover between the extensive pleural thickening and any interstitial fibrosis, a couple down here, and then all the rest of them had extensive disease, but did not have interstitial disease.
Q Let me see -15 now, sir.
A (Document passed.)
Q If I can make --

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A There's the rest of the sheets, if you want to have it.
Q Okay. So you've marked off with a circle on Exhibit-15 those who have thin pleural thickening, and by that, you mean those who you believe have severe diffuse pleural thickening, but with a thinner pleura than what's reported in the literature?
A Yeah, well, they died. Those are ones that died of their disease so we can assume that it was severe from that sheet there.
Q Oh.
A Because I don't have all the rest of the other data here, you know, at this point, but if they died and are on that sheet, they died essentially of asbestos disease, and so if the only thing that's marked is thin pleural thickening on there, that was it.
Q Okay. So what if their lung function was not -- was not below normal?
A That's very possible. It probably was not. It was -- probably was below normal for most of those, I would think, or it was people that had lost a tremendous amount of lung function.
Q Well, but this affects things.
Is there anybody that you've identified --

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anybody that you've identified that's -- now, taking a look at Exhibit-15, try to round out these differences because I now understand more of where you're coming from, but you've identified a difference in the presentation at Libby that people with severe diffuse pleural thickening present differently from those in the literature because their pleura are thinner, right?
A Mm-hm, at the time of death.
Q All right. And you've -- you've indicated who they are on Exhibit-15 by putting in a zero. You've also though put a check mark next to those of that group who had interstitial involvement, right?
A Yeah.
Q So if we wanted to focus purely on those who had diffuse pleural thickening and not on those who also had interstitial fibrosis, we would take a look at the zeros that did not have a check mark, correct?
A Correct, mm-hm.
Q And as I look at it, that would be number 2, number 6, number 14, 15, number 38, number 51 and 52, and number 69, right?
A Correct.
Q Now, of those people, which ones of them actually had a recorded loss of lung function, that

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is, you've circled them because they died, but which ones of them actually had, before they died, a loss of lung function?
A Let me -- let me -- it's on here.
Q I know.
A But it's a wrong -- it's very hard to read. Let me have these sheets. I thought you had the ones that were all taped together. It had colors on it so that they could be easier to --
Q Okay. So what I want -- here, I'll make it even --
A Well, there's a problem. There is a problem here, a little bit.
Q Yeah.
MR. FINCH: David?
MR. BERNICK: What?
A No, wait a minute. I guess I've got the data and I thought --
MR. LEWIS: No, I think you got it.
THE WITNESS: Yeah, I got it.
Q (By Mr. Bernick) So I want: Of those people with those thin membranes and without the diffuse -- without the fibrosis, pure -- just the -- not pure. Those people who had severe diffuse pleural thickening, I want to know and I want you to

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yellow-highlight the number of those who had a below normal lung function at the time of death.

A Okay. I don't know if I can see that. I'm color blind, by the way. This is enough to challenge your vision.

Q Which ones have you highlighted?

A Every one of them.

Q That has below normal lung function at the time of death?

A Every one so far. I think they're all going to be, I suspect, but we'll see in a minute, won't we? Now, wait a minute. Every one.

Q Every one of the ones that you marked as having thin membranes, thin pleura had below normal lung function at the time of death?

A Yeah, every one of them.

Q And as a measure, what did you use as the measure of below normal lung function?

A Well, basically, I was using 80 percent, but actually, I could just as soon use --

Q 80 percent of what?

A 80 percent of predicted, but I could just use lower than that because I don't think there was anything --

Q 80 percent of predicted for what number?

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A I was using, basically, FVCs or DLCOs.

Q Okay. Now, FVC or DLCO less than 80?

A Yeah. We have a lot of DLCOs in here in the 40 range, 30 and 40 range.

Q Now, with respect to all those people that you have yellow-highlighted, which ones of them were smokers?

A I don't -- I don't know if I have that on here. Do I? I don't think so.

Q Well, wouldn't you want to know that?

A Oh, here we are. Yeah, I guess we do have that on this one. We did put that on this one. Well, let's see. Why don't you score this yourself? Active smokers, now there's one, two... (Pause.)

Q I want active or former smokers.

A Well, there's a bunch of them that quit a long time -- actually, a long time ago.

Q You don't necessarily know when they quit from this, do you?

A Oh, I know their pack years and their age, so it probably was a long time ago.

Q But you don't really know that either?

A No, I don't.

Q Let me just ask you: Are there any people that you've highlighted in yellow, that is, having

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thin pleural tissue and severe diffuse pleural thickening who had no smoking history?

A I've got one here. I think one and then I've got one with a pipe. I don't know if that's going to count or not. I think that's all I've got. Most of them quit. They have a Q by them.

Q Just so we're clear, all the people that you've pointed to as evidence that in Libby there's a different presentation of diffuse -- severe diffuse pleural thickening because of the thinness of the pleura, you've marked off those people. You've also indicated which ones of them do not have -- or do not have interstitial involvement.

A Mm-hm. (Answers affirmatively.)

Q And of all those people who had those thin pleura, only one of them was a never smoker, correct?

A Correct.

Q Okay. If we now go to the community exposures --

A Mm-hm. (Answers affirmatively.)

Q -- that's people that you say presented with severe diffuse pleural thickening with lower than expected exposures. Have you also then indicated which ones of them did not have interstitial disease?

A Yeah, I have.

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Q And have you also done that on Exhibit-15? Just hand that over here.

A Oh, okay. Yeah, the key is down here on the bottom.

Q So in order to indicate those people who are different because they had community exposures and still had severe diffuse pleural thickening, you've indicated those with the exposures -- low exposures with a C. With an X, those who had extensive --

A Pleural thickening.

Q -- pleural thickening and then a star if they had interstitial involvement. So to figure out which ones of them are the evidence of your second difference, which is low exposure, you'd look for people who have a C and X and no star, correct?

A Yeah.

Q And of those C, X, no star, we have seven -- Baker is 7. We have Cole, 15, and Cole, 16. We have Fehrs, 30. Yeah, C, X -- C, X -- I'm sorry. That's not Fehrs. That's Erickson, 29. We have Hammer, 37. We have Kujawa, 47. And we have Lundstrom, 49. Shockley, 65. And Thompson, 70. Right?

A Yeah, I wasn't looking at the names.

Q Now, of those people, which ones of them actually had below normal lung function before death?

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A Well, then you have to give that back to me again and I could tell you, probably.
Q Okay. And mark those up with yellow.
A I'm mark it through their C here.
Q These are C, X, no stars, right?
A Yeah.
Q C, X, no stars with below normal lung function at the time of death.
A No X, so we won't do that one.
Q C, X, no star, plus below normal lung function.
A Mm-hm. (Answers affirmatively.) Oh, it looks like they're all going to be in yellow. I hope you can see the yellow because I can't. All of these are low -- you can sort out which ones have excess.
Q And of this group, how many of them were never smokers?
A Were never smokers?
Q Yeah.
A I'll look it up. There's one, two, three -- three, four, five -- five.
Q Five.
So if we take these first two differences that you've identified in presentation, that is, thinness of plural tissue and low exposure and you

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indicate -- you separate out those that had interstitial involvement and you looked to people who had below normal lung function at the time of death, there are a total of five people who were never smokers?
A Probably. That may be.
Q Well, that's what you've indicated, right?
A Yeah, whatever I told you.
Q Now, if they're people who have smoking history, they're going to have -- smoking causes both restrictive impairment and obstructive impairment of lung function, correct?
A No, they cause diseases that may give you obstructive disease, but in their own right, they do not. Only about eight to ten percent of people that are smokers get significant lung disease from their smoking, so --
Q I'm sorry. Who --
A -- no, I would not agree with you at all about --
Q Well, people who -- I'm sorry. People who are current or former smokers, those who do suffer affects from the smoking with loss of lung function, that is, principally obstructive lung function, correct?

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A Yes, if they -- if they develop emphysema, yes, that's the case.
Q Okay. Now, how many of the people that you've identified in your first category, which is the thinner pleura, had obstructive lung function from smoking? Can we figure that out?
A That is going to be very difficult to figure out off of this.
Q What would we need in order to figure that out?
A Tables and continuity, actually, so that you could actually look at them. This is pretty hard to see anything on this thing.
Q Well, would it be best to actually figure out -- if we wanted to know these two differences and what effect, if any, smoking had on the people with these two presentational differences, thin pleura and shorter exposure history, if we really wanted to know what the impact of smoking was, wouldn't we need their medical files?
A Probably would, yeah.
Q And do we have the medical files for all the 79?
A Yes, you do.
Q We have all the medical files --

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A I believe you do.
Q -- in their entirety for all the 79?
A I believe you do, as far as I know. I mean, I wasn't in charge of getting them to you, but I think you have them all.
Q No, because the 79 includes people who are not your patients, right?
A Oh, you should have a redacted file for that.
Q No, we don't. No, we don't.
MR. LEWIS: Yes, you do.
Q (By Mr. Bernick) We have x-rays. We do not have redacted files. The redaction wasn't done. Redaction -- there's an objection that it'll be costly to do the redaction, but we don't have the redacted files.
MR. LEWIS: I think you do have the redacted ones for the study. That's what I -- I honestly believe that. I could check on that.
MR. BERNICK: I don't believe so.
MR. LEWIS: I think you do.
Q (By Mr. Bernick) In any event, if we wanted to see what the impact of smoking was within the 79, it would be best to have the medical files, correct?
A Yeah, it would be, but you'd also need to make sure that when you're dealing -- and if you see

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an obstructive defect, whether it's an obstructive defect due to asbestos disease or whether it's related to smoking --

Q Okay.

A -- and emphysema.

(Exhibit-16 marked for identification.)

Q (By Mr. Bernick) Now, I want to move quickly through the rest of the questions that I have. This is very helpful and I appreciate your taking the time to do it.

I'm going to give you Exhibit-16. Exhibit-16 is the same thing. I now want to talk about the two other points of distinction that you identified for people at Libby.

One point -- further point of distinction was, you said, the rapidity of progression?

A Yes.

Q The second was progression to death, correct?

A Yes.

Q And I take it that with respect to non-malignant disease, your evidence to support both of those points comes again from the CARD mortality data, correct?

A Well, the progression comes from other

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places, if that's what you're talking about, you know, the rapid progression of it.

Q Okay. Let's talk about rapid progression first.

A Okay.

Q Your evidence of rapid progression at Libby that's different from elsewhere, the source of that data -- that data source is what?

A You have it. You have a list of names of people and you have the x-rays for them of people that have had rapid progression of their disease over a short period of time. It's something that's been working and I've worked on to prepare for a paper, but it isn't -- it isn't ready to be published yet, but you have the pulmonary function numbers on those people and you have the x-rays and you have the names and only two of them are not clients and they're in the -- they're initialed in that list.

Now, I don't know where it is, but I know you do have that.

Q Just -- you're ahead of me.

A Yeah.

Q For your opinion that says that there's more rapid progression at Libby --

A Yes.

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Q -- the source of that opinion is data with respect to which people? Which people?

A Those are the ones I was just telling you about, the eighteen. That's part of it. That's the eighteen that are a study population of people that have rapidly progressed that we have documentation of it, both radiographically and with pulmonary functions.

We actually have some more of them that -- a number of other ones that I decided I wasn't going to use for the study because I didn't like the quality of the x-rays or something else. I had to have something that I could document easily.

Q Again, we're not communicating. Let me take this a step back.

I know about the paper that was published in 2004.

A This is not published.

Q Okay. So let's begin and talk about data that you have on progression. There's the paper in 2004, right?

A Yes.

Q You then have people who are in the CARD mortality data set?

A Mm-hm. (Answers affirmatively.)

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Q Is the answer to that yes?

A Yes.

Q And how many of the people in the CARD mortality data set are people who progressed to death from severe diffuse pleural thickening? How many?

A From severe diffuse pleural thickening?

Q Yes, all I'm focused on is severe diffuse pleural thickening.

A Well, we had the low exposure ones that you already know about when the death was --

Q This is why, Dr. Whitehouse, it's so critical that we peel off these questions one at a time.

We've been through people with the different presentations, that is, thinner pleura and low exposure. I now want to know the people whose cases you relied upon for your opinions about rapidity of progression.

A Okay. You have that. It was in -- it was in my expert report and you have a copy of that in your expert report that has the pulmonary functions on eighteen people and you have a CD somewhere that has all the x-rays of those people, the serial x-rays. There it is, right there. He's got it. And there's another page that shows the pulmonary function.

Q Okay. Now, this is -- I'm working with

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Exhibit-6 -- Exhibit-6 to Dr. Whitehouse's May 2009 report; is that right, Dr. Whitehouse?

MR. LEWIS: Which is exhibit -- is it Exhibit-1 to this deposition?

MR. BERNICK: Yes.

MR. FINCH: Yes.

Q (By Mr. Bernick) Okay. So if we go to that, these are Exhibit-6 to your May report, '09 report, are the people who you believe have got rapid progression that's distinctive to Libby from diffuse -- severe diffuse plural thickening; is that correct?

A And I've actually been told that this is really unusual by the people at Mount Sinai --

Q I didn't ask you that.

A -- to do that.

Q I didn't ask you that.

I just want to know what your data was. Is that accurate, this is the basis for your opinion --

A Yes.

Q -- on rapidity of progression; is that right?

A That's part of it, yes.

Q Okay. This data set, who are these people? How do we get from case number here --

A Let me show you.

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Q -- to your spreadsheet? Are they all --

A This one -- they're not on this spreadsheet.

Q Okay. So --

A These people are alive.

Q Okay. So Exhibit-6 to your May report are people who are all alive?

A Yes.

Q And they show rapidity of progression?

A Yeah, and now if you turn the page over, you'll see the names of them.

Q You'll see the names are on the back of the paper?

A And the initials.

Q And the --

A No, the next page down there.

Q Oh, it's the next page. It's the names and initials?

A Yeah.

Q Fair enough.

And these are different from the people who are on -- who were part of the mortality study?

A That's right.

Q Okay. Is there any other data set that you rely upon for your opinions regarding rapidity of progression?

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A No, only my personal experience.

Q Okay. Now, the rapidity of progression that we see here on Exhibit-6 to your May report, what was the criteria for inclusion of these people, that is, how did you pick these people out?

A I haven't worked on this for a while, so I'm trying to remember exactly what -- what I decided. It was something like about a twenty percent drop in lung function over a period of less than two years, I think, as I recall, two years. Maybe four years. I think maybe it is four years.

Q Are there documents that would enable you to -- enable us to see what the basis was for your saying that there was rapid progression in these people?

A Turn the page over and look at the pulmonary functions and you can see what happened to the pulmonary functions and the dates are on there and all.

Q But what I want to know is -- what I want to know is why you picked these people.

A Oh, those are people that I saw in the clinic and that Dr. Black saw and made me aware of and so that's how they wound up in that.

MR. FINCH: Use this copy.

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Q (By Mr. Bernick) But the question is -- but the question is -- I know that these are people that you saw, but why is it you say that these particular people who are listed in Exhibit-6 to your May report show rapidity of progression from diffuse pleural thickening?

A Let me have the sheet here for a second.

Q I don't want interstitial stuff. I want --

A No.

Q -- just your diffuse pleural thickening.

A Oh, I think there's one interstitial in here probably, but most of it's -- maybe two. Oh, they did it on this -- it makes it a little harder to read. They put the before, see, on one page, and the after on the next page.

MR. FINCH: Which one?

MR. BERNICK: It's his report. Has his report been marked as an --

MR. FINCH: Yeah, it's Exhibit-1.

Q (By Mr. Bernick) It's Exhibit-1.

A Yeah.

Q Okay. So can we just get that? That will save us a lot of time. In your stack of exhibits, see if you have Exhibit-1.

MR. LEWIS: I'll help you.

(Pages 257 to 260)

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MR. BERNICK: Thank you very much. I appreciate that.

Q (By Mr. Bernick) So we'll go to Exhibit-1 and we'll go to tab six, and I want you to identify, if you can, the people in this collection who do not have interstitial involvement, that is, who were just severe diffuse pleural thickening.

A Well, they'll tell you. It's number three and it's number thirteen.

Q Number three and number thirteen?

A And number five. And number five has some interstitial disease too.

Q Okay. So in the list on Exhibit-6, the ones with -- that are -- that have severe diffuse pleural thickening without --

A I didn't say these had diffuse severe pleural thickening.

Q That's all I want. I just want to know only about severe diffuse pleural thickening because that's the category I'm focused on in the TDP. I want to know those people in your list you had that you think is unusually rapid progression from severe diffuse pleural thickening.

MR. LEWIS: I think -- I think -- forgive me, Counsel, but I think that's not the

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purpose of this chart. I think we're just talking about progression here as -- and not defining in terms of severity.

MR. BERNICK: I understand that. That's why I want to know because the criticism is lodged with respect to that TDP category. I'm focused -- all my stuff is focused on that category.

Q (By Mr. Bernick) So I need to know -- when you say that there's been more rapid progression from severe diffuse pleural thickening, I need to know whose cases you're pointing to.

A I can't identify them individually. There's no way to do it from what I have here. There's no way to identify them.

Q What do you --

A I have a pretty good idea that they're all severe and they were all severe at the end of their -- I can tell you which ones I know for sure are severe as far as their pleural disease because I took -- as you mentioned, there's a couple of interstitial ones in here and I won't discuss those.

Q Well, what I need -- I don't want to have to just rely on your memory, Dr. Whitehouse, because I know you wouldn't want to rely upon that either.

A Well --

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Q But if we wanted to know those people who had severe diffuse pleural thickening at Libby that you say are distinctive because of rapidity of progression, where would we go to find out who they are and the basis for that?

A Who they are is here, and I guess you could go to your other sheet, if they're on the mortality study, but most of these are not. There's only one that I know of, maybe two, on that mortality study. You have to go to the charts.

Q Have to go to their charts?

A Mm-hm. (Answers affirmatively.)

Q But which charts do we have to go to? The people that --

A All of them -- all of them except the ones that have interstitial disease, look at them.

Q As the charts -- so we would go to the charts of people who are listed in Exhibit- -- tab six to Exhibit-1 of this deposition, we would go there?

A Right.

Q And then we would look for the individual charts of those people who are listed other than the ones with interstitial disease, and what would we look for?

A I think you should look at the ones with

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interstitial disease except for three. Number three I know doesn't have much pleural disease.

Q Okay. And then what would we look for in the charts? What in the charts did you look to in order to say that they had more rapid progression of diffuse -- severe diffuse pleural thickening of what's reported in the literature?

A Well, the first thing I looked at -- the first thing I looked at was their pulmonary functions which is -- tells you a world of information if you look at those because most of them dropped by 50 percent over a period of a couple years, and then you look at the x-rays and see what happened in their x-rays.

Q But what was the criteria for your saying that it was more rapid than what appeared in the literature?

A I think I'd have to look at the draft of the paper. I don't have it with me and I'm sure you don't have it either and it is, indeed, a draft, but I think it was -- and I haven't -- and the reason I don't remember it is because I haven't really looked at this for six months and I haven't had time to, but I think it's -- I think it was either a 20 or 30 percent drop in the FVC or DLCO over a period of

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about three to four years.
Q Three to four years?
A Yeah, that's considered rapid in asbestos.
Q And so I want to be able to -- again, I want to be able to rely upon this so that if you say something, we'll hold you to it when you testify in September.
A Well --
Q We'll hold you --
A -- take a look at the numbers.
Q Well, I don't want to -- I don't want to take a look at the numbers. I want to know your expert -- what you did by way of an expert analysis. I want to be able to say we talked to you back in June of this year -- when you testify in September, I want to say you told us back in June, Dr. Whitehouse, that rapidity of progression that was different at Libby was determined by X and we've now gone out and tested it, so I need to have you to be able to tell us, if you can, what the criteria was or what the fact was that you observed in these people such that you said there was more rapid progression from diffuse pleural thickening than what's reported in the literature.
A I'll have -- you know, there's one that was radiographic. The rest of them are both radiographic

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and pulmonary function and I'll have to look it up and I'll get it to you. There's no way I can remember it now and I'm not even going to try.
Q See, I can't deal with that. I'm taking your deposition today.
A Well, I can't give it to you because I don't remember. Okay?
Q Okay.
A And you'll have to live with that.
Q But how do you know -- well, actually, let me just ask you: What do you think -- let's go back over this for a second. We talked about the difference in the thickness of the pleura, right?
A Mm-hm. (Answers affirmatively.)
Q And you said you think that the people at Libby present differently with diffuse pleural thickening because they have severe impairment with -- even though their pleura tissue is thinner than what's reported in the literature.
When you made that comparison, what did you assume the thickness was that was reported in the literature for people outside of Libby?
A No, I was -- I was using for comparison the plan's three millimeter.
Q Oh, you mean the TDP?

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A Yeah, the TDP is three millimeters is what I was using.
Q Well, what if we set the TDP to one side and simply said, Dr. Whitehouse, I want to know whether you've determined based upon scientific study that there's a difference in the presentation of diffuse pleural thickening at Libby versus elsewhere. Forget about the TDP. I just want to know whether you've determined that the presentation is different than Libby elsewhere. Could you tell me that what you've seen in Libby in terms of the thickness of the pleura on presentation or severe diffuse pleural thickening is different from that same feature reported in the literature?
A Yes, much more frequent.
Q Not frequent.
A Hey, that counts for a whole lot.
Q I'm not --
A You have to look at it that way.
Q No, no, no, no, no, no, no. I just want -- I want you to tease out here -- very important -- how it looks.
Do you know -- do you know based upon scientific data that the presentation of diffuse pleural thickening at Libby is different in terms of

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the thickness of the tissue from how it is has been reported, the thickness that's been reported outside of Libby in the scientific literature?
A I haven't -- I doubt it's any significant difference because it's -- I think it's more a matter of degree or more the matter of frequency than it is the amount of degree. I'm sure you can find the same thing in -- outside of Libby in people if you look for it. That's all.
Q Okay. Now, have you done the scientific analysis to say, I've measured and determined that the frequency of thinner pleura in Libby people is greater than the frequency reported in the literature? Have you done that?
A No.
Q What about when it comes to low exposure? Low exposure has been reported. We know low exposure has been reported as a source of diffuse pleural thickening outside of Libby, correct?
A Yes.
Q Do you know that the -- have you actually scientifically determined that the frequency of reporting of severe diffuse pleural thickening at Libby is actually higher than the frequency of reporting of diffuse pleural thickening with low

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exposure outside of Libby? Have you determined that scientifically?

A No, it hasn't been reported yet.

Q It hasn't?

A It hasn't been reported.

Q When it comes to the frequency of blunting of costophrenic angle, Libby versus outside of Libby, have you determined scientifically that the rate of reporting outside of Libby is different?

A Well, the literature indicates that -- not the literature, but the Amelia* article, et al., says that you shouldn't have diffuse pleural -- they call it diffuse pleural thickening and it's --

Q I know.

A But that's --

MR. LEWIS: Now you've got to let him finish his answer.

MR. BERNICK: Come on. Come on, Tom.

MR. LEWIS: No. Wait. Wait. Wait.

MR. BERNICK: We've been getting along fine.

MR. LEWIS: Wait. Wait. Wait.

MR. BERNICK: We've been getting along just fine.

MR. LEWIS: That's because you were not

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interrupting his answers. Let him finish his answer and then you can inquire.

Q (By Mr. Bernick) Go ahead, Dr. Whitehouse.

A The Amelia article indicates -- or Amelio*, whatever it is, a Frenchman's article a couple of years ago indicates that you shouldn't call diffuse pleural thickening unless there's blunting of the angle. Okay? Well, we know clearly from our CT scans that we've got an awful lot of people with diffuse pleural thickening without blunted angles, and so it's contrary to what's reported in the literature.

Q You done?

A Yeah, I'm done.

Q Now, I'm not -- my -- my question had nothing to do with the definition adopted by Dr. Amelia. Nothing. I'm totally focused on data.

Have you determined scientifically that the rate of reporting for severe diffuse pleural thickening at Libby without blunting of the costophrenic angle is different from the data that's reported in the literature outside of Libby?

A Well, you know, we haven't reported it. We haven't had the opportunity to.

Q No, but do you know that what you've seen at

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Libby is different in frequency from what has been scientifically reported outside of Libby when it comes to blunting?

A Yes, I do know that, but on the other hand, you're -- every time I've tried to testify about things that I reported or I've seen in Libby relative to what's going on outside, you tell me you want to know if I've reported anything or seen scientific data, and what I'm telling you is these are my own observations.

Q Yeah, but we're -- we're -- we're communicating kind of, but not completely here. I just want to be totally clear, so that there's no confusion.

You've got data that you have at Libby. I've tried to unpack the data that you have at Libby. Some of it we've got, some of it we don't have, but we've had the opportunity to find out about some of it today, so I understand Libby.

I'm asking now about whether you know that the experience in Libby is, in fact, different from the experience outside of Libby, and in order to find out about that, I'm asking about how your Libby data compares to data reported in the scientific literature outside of Libby.

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MR. LEWIS: Objection.

MR. BERNICK: Just make your objection. I'm going to ask the question.

MR. LEWIS: I thought you were --

MR. BERNICK: Do you want to make the objection?

MR. LEWIS: I thought you were done.

MR. BERNICK: Go make the objection.

MR. LEWIS: No, I thought you were finished with your question.

MR. BERNICK: No.

MR. LEWIS: All right. Go ahead and finish your question and then I'll make my objection.

Q (By Mr. Bernick) So I want to know whether you scientifically determined that the rate of reporting of severe diffuse pleural thickening at Libby without blunting is higher than the data shows for severe diffuse pleural thickening without blunting outside of Libby.

MR. LEWIS: Objection. Object to the form of the question. The question is clearly compound. It asks several questions.

Q (By Mr. Bernick) Go ahead.

A It's obvious if Amelia is reporting that there's no diffuse pleural thickening. You -- the

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powers that be have created a definition for diffuse pleural thickening that excludes diffuse pleural thickening unless the angle is blunted --

Q Which --

A -- and I'm telling you by all our measurements, we've got about half of ours with severe diffuse pleural thickening that don't have blunting.

Q I understand.

A That's the answer to the question.

Q No, it's not.

A There's no other answer.

Q No, because all you've told me about is the authorities on high and a definition in the Amelia paper. There are many papers that have been reported that have been published on diffuse pleural thickening that have not required blunting of the costophrenic angle to include people in their reports. That was a later development that took place.

McCloud took place before that development. Sargent* took place before that development. There are a whole series of papers that were written before people incorporated into the definition blunting of the costophrenic angle.

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So what I want to know is: Can you -- do you have scientific data on the basis of which you could say the rate at which diffuse pleural thickening has been found, severe, without blunting at Libby is different from the rate that appears in the scientific literature outside of Libby for severe diffuse pleural thickening without blunting?

MR. LEWIS: Well, objection. That assumes facts not in evidence.

A Let me answer the question first. Obviously, the ILO said that those doctors were wrong, that that wasn't diffuse pleural thickening. It can't be diffuse pleural thickening. There's no blunting, so they were obviously wrong. Amelia's right. We're right with -- with your plan here. No, that's -- that's clearly the answer because when they changed the ILO standards and said you can't have diffuse pleural thickening without blunting, they basically said to the guys before them, you guys were wrong.

Q (By Mr. Bernick) I don't --

A That's the answer to it.

Q Well, that may be your interpretation, but I want to know data.

A I don't know what, if any, of that data is in any of that. I don't know what it is. I'm not very

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interested in it and I don't know what the data was --

Q What about --

A -- what the percentage was. I know what McCloud's was. It was about 45 percent.

Q Right, which is comparable to what you found, right?

A Yeah, it is.

Q Okay.

A But he basically was told, you're wrong, because it's -- that's not the way it works.

Q So at least will you agree with me that the -- that you can say that with respect to McCloud, he found a comparable rate of severe diffuse pleural thickening without blunting is what you found in Libby, correct?

A Yes.

Q And do you have any reason to believe that -- do you believe his data is wrong?

A No, I don't believe his data is wrong. I think Amelia's data is probably wrong.

Q Okay. Now, when it comes to -- when it comes to exposure outside of Libby, would you say the same thing, that is, you found severe diffuse pleural thickening associated with low -- low exposures at

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Libby, do you know that that is -- do you know scientifically that that is unique to Libby?

A Well, you know, obviously, McCloud's report is chrysotile outside of Libby.

Q Outside Libby?

A Sure.

Q And so that would be consistent, that is, what he observed outside of Libby with respect to low exposure is consistent with what you observed at Libby with respect to low exposure, correct?

A Yes.

Q Okay. Now, when we talk about progression -- when we talk about progression, you've got cases involving progression that are in your report and it's the eighteen in tab six of Exhibit-1 to this deposition, and you've told us we've got to go back and take a look at the files, and if we have, we will, but I want to know on the basis of what test you can say that the rapid progression that you've observed at Libby for severe diffuse pleural thickening is different from the progression that's been observed outside of Libby on the basis of what test you say Libby is different from non-Libby.

A The rapidity of it.

Q Yeah, but measured how? I want to know what

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measurement you used to say that the rapidity of Libby is different from the rapidity outside of Libby.

A Well, the literature, not only in general, but all the literature indicates it's a slow progressive disease and all of it's directed towards that. And this sort of phenomenon, to my knowledge, has not been reported in the literature.

Q Have you looked to see --

A Yes.

Q Have you looked --

A Yes.

Q -- for the data on progression of severe diffuse pleural thickening outside of Libby? Have you looked for it?

A Well, first off, this -- I didn't say this was serve disease. I didn't say this progressed to severe pleural thickening. That was your term.

Q And that's pointing to Exhibit-6 of Exhibit-1 --

A I didn't say that.

Q -- is that right?

A It's your term. You made that assumption. I just said they rapidly progressed.

Q Okay. Well, then I will -- then I will

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clarify that too.

THE VIDEOGRAPHER: Counsel, we need to switch out tapes.

MR. BERNICK: We're almost done.

THE VIDEOGRAPHER: We're going off the record. The time is now 3:19 p.m. This is the end of disk number three in the continuing deposition of Alan Whitehouse.

(Recess.)

THE VIDEOGRAPHER: We're back on the record. The time is now 3:24 p.m. This is the beginning of disk number four in the continuing deposition of Dr. Alan Whitehouse.

EXAMINATION (Continuing)

BY MR. BERNICK:

Q So, Dr. Whitehouse, I think where we broke off I was asking about progression and then you clarified that tab six of Exhibit-1 is not necessarily progression to or associated with severe diffuse pleural thickening, fair?

A That's correct.

Q And so where is your data that says that severe diffuse pleural thickening shows more rapid progression in Libby than what the literature reports outside of Libby?

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A You know, I don't think that I've actually said exactly that. What I've said is that we have people that have rapidly progressed their pleural disease which falls into this category here. Most of these people do have fairly severe disease or at least they did by the end of this. They had very bad disease and several of them have died from their pleural disease, so I guess you can draw that inference, although I haven't made a great issue out of that.

Also, some of the people in the mortality study were people in my practice that I followed for a while and then went ahead and got significantly worse over, you know, a relatively short period of time, although they were already very sick beforehand and went ahead and died, so I don't know that I have any data concerning that except that I know very well from -- this is probably the best data I have except that I don't have it real collated so I could show you all the radiographs and the pleural thickness and things yet.

Q So today if we focused on tab six to Exhibit-1, you say that these people reflect rapid progression, but exactly how and -- how they do that is something that you would need the patient files in

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order to be able to explain, fair?

A Well, yeah, clearly they -- they markedly increased their pleura disease associated with their loss of lung function, at least all but one, and one was purely interstitial.

Q So --

A But whether or not you would say when you look at them whether they'd gone from three to five millimeters or one to three or what, I can't -- I can't recall how many of them actually went to what you would call severe pleural disease.

Q So you can't say on the basis of this that they had a rapid -- a more rapid progression. This is really what I'm getting at. There are two issues. The first issue is what you actually say is reflected in tab six to Exhibit-1 by way of progression.

And what you've been able to tell us is that there's rapid progression, but you've not been able to tell us exactly the test that you used in saying that there's been rapid progression in these particular cases, fair?

A You're not talking about pulmonary function tests here, you're talking about a test like the radiographs or something?

Q No, I'm -- again, this is you, not me. This

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is your opinions. You've said that tab six to Exhibit-1 reflects progression and I have asked, well, with respect to severe diffuse pleural thickening, how does the data in tab six show a rapid progression in diffuse -- severe diffuse pleural thickening, and you said this is not focused specifically on that question, right?

A That's right.

Q So I then said, well, what was the test, how -- whatever you were doing with tab six, what was your test of progression? And if you can answer that, that would be great. What was your test of progression for the matters that are set forth in tab six of Exhibit-1?

A Okay. Except for case ten, where I only have one set of pulmonary functions, but had a lot of x-rays from before, it was a combination of both the x-ray and the pulmonary function. The x-ray had shown progression of pulmonary -- of pleural disease and the pulmonary functions at the same time had shown a decline consistent with the kind of x-ray changes, I would say.

Q And exactly how you worked with those things in each of these cases, we'd have to have a file in order to explore that with you, fair?

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A Yeah.

Q Okay.

A If you have the file, I'll be happy to discuss it with you.

Q Okay.

A This is very clear cut when you look at the x-rays and the chart.

Q But you can't articulate it verbally as we sit here?

A Exactly for each one, no, I can't.

Q Okay.

A I mean, I can for some of them, if you'd like me to.

Q No, I want to -- I'd like a rule or a test. I mean, was there any one test or rule or was this a matter of different factors for different people?

A Well, there was sometimes different factors and the paper will reflect the various different factors that went into that.

Q And that's the paper that you have in draft form?

A That's the paper that I've got in a draft, but I haven't -- it isn't anywhere near ready for publication.

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Q But to be clear, you're not -- you can't say scientifically that the progression that you've observed in tab six is different from what is reported scientifically in the literature for progression of severe diffuse pleural thickening in the scientific literature, can you?

A I think it actually is. I think this has not been reported.

Q Well, but this data has not been reported, tab six?

A No, no, this phenomenon has not been reported.

Q But you can't -- I mean, have you actually investigated the scientific --

A Yeah.

Q -- literature --

A Yeah, we have.

Q -- to look for progression in the scientific literature?

A Oh, yeah. Looked at lots of progression articles in the scientific literature and particularly related to amphiboles which, of course, this is.

Q Okay. So --

A And have not -- I've discovered slow gradual

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progression over decades or progression with small amounts, but not to this degree.

Q Okay. Well, then, you tell me how -- exactly how -- not just, you know, generally, but you tell me exactly how the progression that you've observed is reflected in tab six is different from the progression of severe diffuse pleural thickening in specific data in the literature. I want to know the data in the literature which you're pointing to that says you say scientifically is different from the data that you have in Libby. I want to know that precisely. That's what I'm getting at.

MR. LEWIS: Objection. Compound question.

Q (By Mr. Bernick) So my question to you is: What precisely is the difference between the data that you report in here at tab six and the data that you see reported in the external literature, and what literature are you referring to?

MR. LEWIS: Objection. Compound question.

A The -- the extent of the loss rates in this is much higher. I mean, the loss rates that you see in the literature is going to be one or two percent. The highest one I've seen is about two percent in the

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DLCO from Australia per year. Okay? These are -- you know, we're looking at 10, 15, 20 percent per year in these people.

Q (By Mr. Bernick) Okay.

A But those -- those studies do not have any real radiography that goes along with them and I've looked at a number of these and there isn't anything that comes comparatively close to this.

Q These -- these are a total of 22 people or thereabouts?

A Yeah, thereabouts. It's going to get whittled down some, but --

Q How did you pick them?

A Oh, just these were people that I saw that -- you know, I saw in the clinic or Brad had seen in the clinic and, you know, they came in because they were getting more short of breath and looked at things sequentially and their x-rays and all and, indeed, had a good reason for it.

Q Yeah, but this is a very small subgroup of your patients, correct?

A Oh, it is a small -- no, no, I didn't say it happens to everybody by any means. I'm -- there's going to be more of them and this took a couple of years to collect this.

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Q But -- but did you pick them out -- did you pick them out -- well, strike that.

Progression is something that you can look for throughout your patient population, right?

A Sure.

Q And if we looked for progression for people who have a non-malignant disease in your whole patient population and we gathered all the data, would we see a pattern of progression that's different from what we see in the literature?

A Probably. With other diseases, you mean?

Q With other non-malignant diseases. Your non-malignant disease population at Libby.

A Sure.

Q If we took a non-malignant disease population outside of Libby and we said how have they progressed, Libby, non-Libby, would you see an overall pattern of progression in Libby that is different from progression outside of Libby?

A Well, to my knowledge this is not described in -- outside Libby either. There are diseases that progress rapidly that are non-malignant. Emphysema can do that. Emphysema will progress --

Q Well --

A -- quite rapidly.

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Q I'm -- you picked out 18 cases or 22 cases, right?

A Well, they sort of picked themselves out.

Q Right, but they are -- they are a very small subgroup of the total population of people that you've seen with non-malignant disease at Libby, right?

A That's true.

Q And, indeed, they are the ones who are probably most dramatic and pronounced when it comes to progression, correct?

A That's correct.

Q Now, if you go to the populations outside of Libby where you say the progression has been slower, are they these very select populations like yours here, 18, 22 people selected or are they larger groups of people?

A Well, you know, this is a selection of 22 out of the whole clinic population. The studies that I've seen, particularly from Australia which I read on a fairly regular basis because there are many similar problems that they have, they have very large case studies here and most of their studies -- not most of them, all the studies that I've seen out of there related to progression relate to slowly

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progressive disease. Now, that's not to say that they don't have some and they haven't published it. I have no idea.

Q Well, but that's the whole point is that if you had done a study that included not just the most significant or pronounced cases at Libby, but the broader population, that would then be comparable to studies outside of Libby working with larger populations, right?

A No, because I think that anybody that was dealing with this on a regular basis that wrote papers or was in a research facility or whatever it is would take note of this and write this up --

Q I didn't -- Dr. Whitehouse --

A -- in a separate paper, not as --

Q That is -- that's a what or a would or a maybe. I just really want to know what we know. Okay?

A Well, it's no more of a would or a maybe than what you said.

Q No, not at all. I'm asking for a fact.

If you take -- if you want to make a comparison of Libby, non-Libby, you have to have studies that are comparable in scope, right?

A Mm-hm. (Answers affirmatively.)

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Q I'm sorry?
A Yes.
Q Okay. And so if you have a study inside of Libby that's a large population of people with non-malignant disease and you want -- and you ask what's progression like and you record the result, if you want to know whether the same thing is true outside of Libby, you'd have to have a study that picks out a large population and the study is done in the same way, right, apples and apples?
A Yeah.
Q Okay. Here you have a study in Libby and it's not a big group, it's a small group, and it was a group that was picked precisely because they picked themselves, in your own words, the rapid progression. If you want to know whether that's unique to Libby, you'd have to look for a comparable study outside of Libby, right?
A Right, nobody's published it.
Q And so -- but it's not that you know it's unique to Libby, it's that you haven't seen a study like this outside of Libby, correct?
A Yeah, but, you know, I don't have x-ray vision to know whether they actually have it and haven't published it, so if they haven't published

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it, the likelihood is that they haven't seen it.
Q Well, but that is -- that is an inference on your part. All you know is that you have a highly select group of people where you've made this observation at Libby and you're not aware of a comparable study outside of Libby, fair?
A That's true.
Q Okay. Now, if we talk about -- for a moment about a comparable group within Libby, that is, if you were looking for a larger group at Libby to compare it to the larger groups outside of Libby, you said that the larger groups outside of Libby with non-malignant disease reflect gradual loss, fair?
A Generally.
Q Okay. There are studies that have been done of larger groups of people at Libby, correct?
A At Libby, you said?
Q At Libby.
A They haven't -- not on loss of pulmonary function.
Q Sure, your progression study.
A Oh, my study, yeah.
Q Okay. So if they took a look at your study that you published in 2004, that's a study of a larger group of people, correct?

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A Mm-hm. (Answers affirmatively.)
Q I'm sorry?
A Yes.
Q And that would be a good place to go if you wanted to see is the experience at Libby different from the experience outside of Libby because that's the study that's working with a larger group of people just like the larger group of people outside of Libby, correct?
A That's exactly what it showed, that it was higher than the --
Q We'll get to what it showed. Just answer the question.
A -- prior published studies.
Q Please just answer the question.
Is the study that you did in 2004 on a larger group of people a good place to go for an apples and apples comparison with studies of progression in large groups of people outside of Libby?
A Yes, probably.
Q Okay. Now, when you did the study in 2004, you picked out people and you looked for progression, correct?
A No.
Q How did you pick out --

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A No, I didn't. I just took all-comers.
Q All-comers?
A When they had their second pulmonary function and everybody got a second pulmonary function, so there was no bias in selection.
Q Okay. So the 2004 progression study that you did was an all-comers, no selection, no bias study, correct?
A Right.
Q And that's comparable apples and apples with large group studies outside of Libby that you've looked at and found the slow progression, correct?
A Yes.
Q Whereas, this -- this paper that's not yet published is not an all-comers paper, it's a select group?
A It is a select group. Perfectly willing to admit that.
Q Okay. And that's what's reflected in tab six to Exhibit-1, correct?
A Mm-hm, yes.
Q Now, if we take a look at your 2004 paper, you had the all-comers group, but you only looked at two data points, correct?
A That's true.

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Q And, in fact, if we look at that all-comers group, it turns out that many of them had many more data points, correct?
A I took the first one that I had and the last one that I had when I was doing the study and they had more data points later on. No question they had more data points. There were also some people that got into a study with Enbrel* and that -- I did not take them because of that.
Q Didn't ask you that question with all due respect, Dr. Whitehouse.
MR. LEWIS: Doctor, just try to answer the questions that counsel is asking you. Okay?
THE WITNESS: I thought I was.
Q (By Mr. Bernick) I know. That's okay, but let's just keep on going ahead.
The 2004 study, you used only two data points with respect to each of the individuals in that study, correct?
A Yeah.
Q And isn't it true that there were many more data points that were available to be used in that study beyond those two data points?
A No, because I cut it off at a certain point, put the data together and ignored everything that

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went on afterwards. That wasn't germane to the study. It was the first and last.
Q Will you agree with me that with respect to all those people, there were many other data points that were available, it was your decision not to use them?
A No, they weren't available when I wrote the paper.
Q Oh.
A That's what I said.
Q They weren't available when you wrote the paper?
A Because they hadn't been done yet.
Q Oh, they hadn't been done yet, okay.
So now if we took a look at these people who were in the 123 study -- 123 study in 2004, that same population, and we looked to all of the data that's available on their progression, have you done that analysis?
A I have not.
Q Isn't it a fact that if we looked to the other data points with respect to the people in your 2004 study, we'd find dramatically different progression numbers from which you put in the paper?
A I do not know that at all. I doubt that

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seriously.
Q Would that be an important thing to do to find out the truth of what happened with those people, to look at all the data rather than just two points?
A Well, it'll be a little bit hard to do because about 40 of them have died already. Between 35 and 40.
Q Not at all.
A What?
Q No, because even with respect to those people, you'd have more data before they died.
A You know, there isn't any point to doing that.
Q Why?
A The study was done honestly. It was done --
Q I'm not --
A -- looking clearly at those studies and --
Q There's no dispute about that.
A Okay.
Q I'm not saying there was -- I'm not saying anything else. I'm saying if you wanted to know more of the truth of what happened to the people in your all-comers study in 2004, there's more data that could be examined, correct?

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A You could examine data up until the present time. You could continue to examine data.
Q Sure.
A But there's no point.
Q Okay. But you haven't done that examination of data?
A No, and I don't intend to.
Q Have you ever done a progression study with respect to non-malignant disease in all 950 --
A No.
Q -- of the people that you've looked at?
A No.
Q There's no reason you couldn't do it, correct?
A No, and it will be done.
Q Let's talk about progression to death. That was the other thing that you said was distinctive in connection with the Libby population.
Are you aware of any comparable study that's been done of progression outside of Libby?
A Progression in general?
Q No. You say that the Libby experience with non-malignant disease, severe -- I'm all focused on severe diffuse pleural thickening -- is different because of the rate of the frequency of progression

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to death. Do you remember that?
A Yes.
Q Okay. And I'm just asking whether you've actually looked for comparable data outside of Libby to know whether it really is unique to Libby. Have you done that?
A For progression of death, no.
Q Okay. Now, in progression to death in the case of the Libby data that you have, my understanding -- and I want to get a little bit into this and I've got one more -- a few set of questions and then I'm done, get out of here, take an airplane. Okay?
So in the case of Libby, as I understand it with respect to the CARD mortality study, you had a patient population of people who had died and you performed this analysis to determine the circumstances leading to their death and we got down to a subgroup of about 76 people who you say had non-malignant respiratory disease and they progressed and they died, right?
A Yes.
Q And that's what you rely upon as your source of information to say that the people in Libby with non-malignant respiratory disease progressed to death

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with greater frequency than would be the case outside of Libby, correct?
A Correct.
Q Okay. Now, as part of that exercise, you looked at the death certificates, right?
A Yes.
Q But you also had this procedure called best available information, right?
A Yes.
Q And this best available information procedure that you applied, you felt, had precedence in Selikoff's own work, correct?
A Had precedence?
Q Yes.
A It was sort of an additive more than a precedence.
Q Well, but, see, that you felt there was a precedent for what you're --
A Oh, I see.
Q -- doing.
A I see what you're talking about. I'm sorry.
Q Yeah. There's precedent for what you were doing in Selikoff's work, correct?
A Yeah, I think so. As best I can tell, we try to replicate that.

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Q Okay. And Selikoff's work, you also got information on what Selikoff had done and his best available information analysis, you had information from Dr. Frank, right?
A Yes.
Q Okay. Now, Dr. Frank told us that Dr. Selikoff did this best available information work and he said that there was no written protocol for it. Is that consistent with your understanding?
A I think so, although I know they did use sort of a protocol as to what they did. When you read the paper, they sort of tell you how they went about doing it. Whether that's a protocol or not, I don't know.
Q But are you aware of any written protocol that was actually used by Dr. Selikoff in his work on best available information?
A No.
Q Okay. Are you aware of any other -- are you aware of any protocol that exists in the field of scientific research for mortality studies that is a best available information protocol? In other words, can we look anywhere and find in the literature on mortality studies a protocol or an established methodology for doing a best available information

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analysis?
A Not that I'm aware of.
Q Okay. Now, in connection with your own best available information analysis that was done in connection with the CARD mortality study, was there a written protocol?
A No.
Q Dr. Frank said that in the Selikoff work, he said that there was a death certificate available for all of the people who were involved in Selikoff's mortality study. Was that your understanding?
A Yes, it is.
Q And he explained to us that a death certificate will have two sources -- two pieces of information about the cause of death. One is the immediate -- temporally immediate cause of death and the other is the cause of death, that is, an assessment about what the real cause of death was. Is that your understanding of how death certificates are supposed to be filled out?
A That's how they're supposed to be filled out, but that's probably the biggest failure of physicians is filling out death certificates.
Q Right.
And he also said that when Selikoff did the

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best available information assessment that the criteria or what was being looked for didn't change. They were looking for the best or the cause of death, what the real cause of death was, not the condition immediately preceding death, but the real cause of death. Is that your understanding of --

A Yes.

Q -- how Selikoff did his BAI or best available information analysis?

A Mm-hm. (Answers affirmatively.)

Q I'm sorry?

A Yes, I agree.

Q Okay. Now, when it came time for doing the best available information assessment in the case of your work on the mortality -- the CARD mortality data, it's true, is it not, that you determined what the -- in the sense, the cause that you were looking for should be, that is, you determined whether you were going to look for a substantial contributing factor to death or the cause of death, that was your decision?

A It was looked -- both of those were looked at.

Q I'm sorry?

A Both of those were looked at.

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Q When it came to defining what to look for in the CARD mortality data regarding cause of death, the test that was to be applied was your decision, right?

A Yes.

Q Okay. And you've told us that two different tests were used. In the first analysis, the test for determining the cause -- for determining cause of death in the mortality data, the test was, was asbestos a substantial contributing factor, or words to that effect, correct?

A Correct.

Q And on the basis of that, you gathered information regarding these 79 people who had non-malignant disease and died, right?

A Right.

Q And then you changed the test in the second go-round and what was the test in the second go-round?

A Best available information.

Q Best available information regarding what? Whether asbestos was a contributing cause or was it whether the asbestos related to disease was the cause of death?

A Yeah, what we did was -- there were a lot of people that had -- or not a lot, but there were

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people that had a contributing cause where they had -- we knew they had significant asbestosis, but when we really came right down to it in the nitty gritty, we couldn't be sure if they wouldn't have died of their disease of whatever they had at that point, whether it was asbestosis or whatever it was.

To use asbestosis as a piece of information, that it was a major causative factor in their death, we had to look at the severity of their disease, how it was affecting them at the time, what happened to them as the terminal event, and whether it could be related either directly to the asbestosis or if the terminal event was such that they couldn't survive it because of their asbestosis.

Q Okay. So let's get this to the bottom line. The people that you rely upon for your opinions regarding progression to death for non-malignant disease are the people that are listed in Exhibit-15, it's those people there, the 79 people, right?

A Right.

Q And those 79 people are people who satisfied the best -- the BAI test, the best available information test with respect to non-malignant asbestos disease, correct?

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A Correct.

Q What was the test they satisfied, that is, are the people on Exhibit-15 people with respect to whom asbestos-related illness was a substantial contributing factor to death, a major causative factor for death, the cause -- the cause of death? What was the test that was used in putting people in the group of 79 that's in Exhibit-15?

A I already answered that. It was the last two.

Q The last two?

A It was either directly asbestosis or it was the asbestosis was so severe that they had something like a pneumonia so that the cause of death may have been pneumonia because a lot of those underlying -- and it said asbestosis or if it -- you know, the death certificate said something like COPD, which it did several times, we went and looked through the whole chart and found out that they had severe asbestosis, they didn't even have COPD, and that's been a common problem in Libby for years and years.

Q But -- but my question --

A So it was -- it was a direct result of the asbestosis or we wouldn't have coded it that way.

Q Well, that's really what I'm getting at.

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On the death certificate, it's supposed to be -- we heard from Dr. Frank it's supposed to be the cause of death, right?
A Yes.
Q Did you apply that test and that test only --
A No.
Q -- in deciding -- so just let me finish my question.
Did you apply that test and that test only, that is, the cause of death including people on Exhibit-15 that is within your 79 group or was there some other test as well?
A No, ultimately, it wasn't the death certificate because the death certificates were so frequently wrong.
Q I'm not talking about death certificates.
A It was reviewing the entire chart.
Q I know.
A Well, then I don't get your question.
Q Okay. That's fine.
I know that you could either go with the death certificate or go with more information or go with both. I know that. But, ultimately, the information that you're gathering has to be judged according to some test, and we know that the test

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that's supposed to be used for filling out a death certificate is the test of, well, what was the cause of death, and Dr. Frank has told us that and I think you've agreed, right?
A Yeah.
Q And Dr. Frank says when Selikoff did his BAI work, he looked for more information that was on the death certificate, but the test was still the same, that is, what was the cause of death, so I'm now asking in the case of your work with the CARD mortality data and including people in your group of 79 people who are people where you say their death was in some fashion related to non-malignant disease. I'm asking for what tests you used.
Was it the test of, what's the cause of death? Was it, was asbestos-related illness a substantial contributing factor? Was it, the asbestos-related illness was a major -- which test did you use?
A Same way you described for Selikoff, took the death certificate regardless of what the death certificate said, reviewed the chart, and found out whether or not that was -- if it said asbestosis, was that legitimate, really was asbestosis and respiratory failure or was it a pneumonia but

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asbestosis was the underlying cause. Was it cor pulmonale, but asbestosis was a cause of cor pulmonale.
Q So --
A We were looking for direct cause.
Q You were looking for direct cause, that is, the same way a death certificate should be filled out?
A Yeah, the way it should have been filled out in the first place, yes.
Q Okay. And that's how you included people in your --
A Yes.
Q -- group of 79; is that right?
A Yes.
Q Now, is there anything -- any place that we can go to see how you made that judgment for any of the people who are on your list of 79, that is, Exhibit-15? Is there any place where we can go to find out how you made the judgment about the cause of death?
A No, except to go to the chart and you've got other places. You know, I talked to doctors about it and talked to the family physician as to what happened, all kinds of things like that to get the

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information.
Q That's information?
A Mm-hm. (Answers affirmatively.)
Q But if I want to know with respect to anybody who is on Exhibit-15, that is, for whom you're relying for your idea of progression to death, is there any way that I can determine how you decided what the cause of death was for any of those people?
A Probably not because it -- after I've gone through all the things I need to go through, then I fill out on my computer whether it was related to asbestos or whether it was not related to the contributing cause.
Q So there's no place that even today --
A There's no written record that will help in that.
Q Now, my last question and I am done -- just in time -- relates to going from your group of 79 people.
You've told us that the 79 people who are listed in Exhibit-15 are the source of information regarding how people with severe diffuse pleural thickening present differently you think from people with the same disease outside of Libby, and we've gone through that now in all the different areas of

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difference, thickness of pleura tissue, occupational history or exposure history, blunting, and progression, right?
A Right.
Q Okay. Now, you offered the view that you could use the information that you have about the 79 people from the CARD mortality study and extrapolate to the 950 or, thereabouts, people who have made claims in this case, right?
A Correct.
Q Okay. And I take it then that you're not going to be relying upon the remaining 850 people for any of your opinions in this case; is that right?
A No, there's no way I would be able to in --
MR. LEWIS: No, I think that was confusing. I don't mean to interfere.
MR. BERNICK: I'll --
MR. LEWIS: You're talking about -- are you talking about opinions relating to the progression?
MR. BERNICK: I'll be very clear.
MR. LEWIS: Okay. Because it's --
MR. BERNICK: I'll be very clear.
MR. LEWIS: All right.
Q (By Mr. Bernick) We know that there's a

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motion that's been -- are you familiar there's a motion that's been filed in this case?
A Only one, I understand.
Q Okay. A motion that's been filed in this case to strike testimony that's based on the 1,800 because we don't have the 850 files. Are you familiar with that?
A Yeah, I'm familiar with it.
Q I'm sorry?
A Yes, I am.
Q And who told you about that?
A The lawyers.
Q And what did they tell you about it?
A That I might not have to go back east.
Q That's pretty --
A They were helping me plan my summer.
Q And you understand, therefore, the problem that's been identified or has been alleged in the motion is that the people in this case don't have the records for the 850 people. Do you understand that?
A That's what I've heard, yeah.
Q And so, basically, is it correct that what you're saying now is that you believe you can offer the opinions that you have to offer in this case without having to rely upon the full 1,800, rather

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you can express your views simply confined to the 950 people?
A Yeah, I think so for a number of reasons.
Q Oh, I didn't ask you reasons.
A Oh, you don't want me to answer that?
Q That's what you're doing and that's --
A That's basically what I'm doing, yes.
Q Okay. And that's basically, fair enough, a response to this issue that's been raised?
A I guess, you know.
Q Okay. Now, in order to get opinions about the 950, you don't have analyses of all the 950 people, correct?
A Not entirely. I do have some analyses that -- I have one in particular that's of help.
Q Well, has it been made available to us?
A Yeah, it's on the sheet somewhere. I don't know where it is, but somewhere it is -- and I can relate it to you right now if you want to, how we -- how I arrived basically at some notions concerning that 930 to 950, whatever it is.
Q Hang on for a second.
If I have it -- and I don't want something --
A It's probably on that sheet that you had that had all the numbers on it of how many people had

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pleural disease, et cetera, et cetera.
MR. LEWIS: Exhibit-15 and -16, is that what you're --
MR. BERNICK: No.
THE WITNESS: No, no.
MR. BERNICK: It was the diagram.
THE WITNESS: It was the one that Joel did that --
Q (By Mr. Bernick) Well, let me just be clear.
A Okay.
Q If I go to your expert report, I cannot find -- let me begin even more basically.
The 950 people, you've not performed a study on the entirety of the 950 people, correct?
A That's correct.
Q You've not published a paper on the 950 people, correct?
A That's correct.
Q You've not issued an expert report on -- that presents the data of all the 950 people, correct?
A No.
Q I'm sorry. Is that correct?
A That's correct.
Q Now, you have said though that you believe you can extrapolate from the experience with the

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subgroup of the 950 to the 950, right?
A That's correct.
Q Okay. Now, have you presented an expert report on that subject?
A I think it's somewhere in there, but I'm not sure where.
Q Not somebody -- have you actually presented a formal extrapolation from a subgroup of the 950 to the 950? I haven't seen it anywhere, but if it exists in your report, I'd like to know about it.
A I thought there is some -- there's reference to it in there somewhere, but I don't know where it is exactly. I can find it if you want me to or try to.
Q What is -- just tell me, what's the subgroup that you're extrapolating from?
A Okay. The -- there's two parts to this. First off is that all 950 of those that have lawsuits, all sort of -- all filed them before the bankruptcy or shortly -- or around the time of the bankruptcy or the vast majority of them did. They were all filed somewhere early in this century.
Q Let's just stop there.
Where is that data set out? I'm not aware of the 950 broken down into people who filed before and

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after the bankruptcy.
A Well, no. Well, almost all of them filed beforehand and I do know that to be a fact.
Q And I've not seen that. Do we have the analysis?
A No, you don't have an analysis of that.
Q Okay. Next step.
A The second point is that the breakdown on the mortality study was 33 percent for miners. The remainder -- it was basically almost a third, a third, a third.
Q You say the mortality study --
A Yeah.
Q When you say the mortality study --
A You extrapolate that --
Q Hang on.
A You --
Q No, no, no. I just want to get it piece by piece.
The breakdown that you say of the mortality study, who in the mortality study, the 79?
A The 79.
Q The 79?
A The 79.
Q So if we go to the 79 people, there's a

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breakdown between who was a worker and who was a family member and who was community?
A Right.
Q Okay. And that's indicated in Exhibit-15, right?
A That's Exhibit- -- yeah, somewhere in there.
Q Okay.
A And then if you look at the 950 claimants, the breakdown is almost identical. I mean, it's within a couple of percentage points.
Q Where do we see -- where is that done?
A Oh, the lawyers have done it.
Q Do I have --
A I don't know.
Q Do I have present in some fashion to us here in the case the breakout of the 950 by community exposure, family exposures, and worker exposure?
A I think you do, but I don't know where it is. I mean, they would have given it to you.
Q But you don't have it here today?
A I do not have it here today.
Q So you have the 79 people that we have broken out by community, family, worker?
A Mm-hm. (Answers affirmatively.)
Q You have the 950 with respect to whom you

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want to offer an opinion, and you believe that they fall into -- they show a similar breakdown, community, worker, family, but we don't have that breakdown here today, fair?
A That's fair.
Q Okay. Go ahead.
A And based upon that, the probability that the statistics in the mortality study will follow through on the 950 --
Q Okay.
A -- of what we know about the disease and then we'll see a similar -- similar death rate, ultimately.
Q Okay. And that's your extrapolation?
A That's the extrapolation.
Q Now, is that extrapolation set out in writing anywhere that we can look at?
A I think it is, but I don't know where it is, whether it's in my report or whether it's in the data. I think it's in the data that was submitted to you.
Q Is there any report that explains for us the scientific basis for believing that that extrapolation is sound?
A I doubt there's any specific report, no.

(Pages 313 to 316)

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Q Okay. Now, I want to then, finally, focus on epidemiology. Okay?
Is it correct there's no epidemiological analysis that's been done on the CARD patient population? Is that true?
A Well, yes, there has been because the ATSDR and NASA and all that have followed through and gotten their exposure histories and haven't published it yet.
Q Well, I'm talking about -- I'm talking about something I can get ahold of, something that's available to us.
Is there any available epidemiology on the people at the CARD clinic?
A You know, there's some stuff that just came out recently. There are several things actually you might want to -- one is -- there was a pilot study that was done in 2000.
Q Pilot study? Is that an epidemiologic study? That's a pilot study.
A Oh, that probably does not qualify, you're right.
Q As of the criminal trial which took place a few weeks ago --
A I think there's some stuff that's come out

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recently, but I -- I honestly don't know what's available.
Q Today, can you point to any epidemiological study that's been done on the CARD patient population?
A No, except for the one that I've done on the pulmonary functions which is (inaudible) epidemiologic study. I guess in a sense the Sullivan study was an epidemiologic study.
Q That's on ATSDR?
A And Peipins was certainly an epidemiologic study. Those are the three that I'm most familiar with.
Q Well, the Peipins study was on the ATSDR population, right?
A Yeah.
Q And we've already -- we already know that, at least Judge Malloy* didn't feel it was an epidemiological study, correct?
A He -- he said it wasn't.
Q Yeah, that's his --
A Well, he's wrong.
Q Well, he may be right or wrong, but with respect to the CARD patient population, you rely upon the CARD patient population for your opinions in this

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case, correct?
A That's true.
Q And today --
A Well --
Q Well, we went through --
A Let me backtrack a little bit on that one before I say yes because a lot of the data that I rely on is -- they are patients at CARD now, but a lot of it goes back way beyond when I was actually in the CARD. Okay?
Q I know. That's your personal knowledge and that's your experience, but in terms of scientific data that you're relying upon, you're relying upon scientific data from the CARD Clinic, correct?
A Yeah, and the stuff that you've seen here.
Q Right. That's all -- all the stuff I've been seeing here, when it comes to Libby, is data from the CARD Clinic, correct?
A Well, there's no place else to get it actually on these people except at the CARD Clinic.
Q And today, is it true, that you can't point to any epidemiological work study that's been done and available to us on the people from the CARD Clinic, correct?
A That's true --

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Q Okay.
A -- except for what you have here.
Q Well, but there is no epidemiology that you presented here on the CARD Clinic, correct?
A Well, the mortality study is an epidemiologic study, sure.
Q The CARD study?
A No, the mortality study.
Q The mortality study is an epidemiologic study?
A Sure. Sure, it is.
Q Just what you have in your little expert reports is an epidemiological study?
A No, this whole thing here becomes an epidemiologic study.
Q Oh, I'm sorry.
So you've now said that Exhibit-15, the list of 79 people, is an epidemiological study?
A Yeah, it's a descriptive epidemiologic study.
Q It's --
A It describes -- it describes in a patient population certain parameters. That becomes epidemiology.
Q Oh, I see. Let's talk about a controlled epidemiologic study.

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There's no controlled epidemiological study that's been done on the CARD patient population, correct?

A No, and there probably never will be.

Q There's no controlled epidemiological study that you can cite to support your opinion that the presentation of severe diffuse pleural thickening at Libby is different from the presentation of severe diffuse pleural thickening outside of Libby, correct?

A No, we've already discussed that.

Q I said -- I'm asking about controlled epidemiological studies. There's no study --

A No, there aren't any.

Q Okay. And the same thing would be true regarding your opinions of progression, correct? There's no epidemiological study that you can point to, controlled, that supports those opinions, correct?

A That's true.

MR. BERNICK: Okay. And I have no further questions at this time. Sorry to take so much of your time today, Dr. Whitehouse, although we always enjoy the debate, right?

THE WITNESS: I'm not so sure about that necessarily.

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MR. BERNICK: Oh, come on.

Anybody on the phone have any questions?

MR. SVIRSKY: Yeah. This is Gary Svirsky from O'Melveny & Myers. I have a few questions for Dr. Whitehouse.

MR. BERNICK: How long is it going to take, roughly?

MR. SVIRSKY: I don't know. It depends on how much Dr. Whitehouse has to say. Maybe twenty minutes. Maybe thirty minutes.

MR. LEWIS: Can we take a break then?

MR. SVIRSKY: I'm happy to defer to anybody else in the room who wants --

MR. BERNICK: No, no, we're all dying to hear your questions.

MR. SVIRSKY: Oh, okay.

MR. BERNICK: We're not sure why -- why Arrowood would have any particular interest in this case, but that's also a subject of curiosity, so go ahead.

Oh, do you want to take a break?

MR. LEWIS: Just a very short --

MR. BERNICK: We'll take a short break. We'll let you know when we come back.

MR. SVIRSKY: All right. Let me know when you're ready.

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THE VIDEOGRAPHER: We're going off the record. The time now is 4:12 p.m.

(Recess.)

(Mr. Bernick exits.)

THE VIDEOGRAPHER: We're back on the record. The time is now 4:24 p.m.

EXAMINATION

BY MR. SVIRSKY:

Q Dr. Whitehouse, can you hear me?

A I can.

Q Okay. Good afternoon. My name is Gary Svirsky. I'm an attorney at O'Melveny & Myers. I represent Arrowood Indemnity Company formerly known as Royal Indemnity Company.

I've got just a few questions for you, and since we're doing this by phone, please let me know if you can't hear me or something comes across garbled and I'll try and restate.

A Okay.

Q Fair?

A Understood.

Q Okay. Now, Dr. Whitehouse, am I correct that you stated in your first deposition that you have considered hundreds of exposure histories from

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various asbestos claimants?

A Yes, certainly.

Q How many did you consider in total?

A Are you talking about Libby or -- and what first deposition? In March or two years ago?

Q I'm referring to the deposition in March.

A I think --

Q How many did you consider in total, sir?

A Well, basically, I'm not sure I can answer that question. Basically, I see most of the patients at the CARD Clinic at one time or another and I ask most of them about their exposure histories.

Q Could you give an approximate number of the number of individual exposure histories you considered in rendering your opinion in this case?

A That's a hard question to answer because I don't keep track of it, but I'm sure well over a thousand.

Q Is it over two thousand, sir?

A Well, not in Libby, no. It's less than that.

Q And how many individuals from Libby did you consider?

A Well, that thousand that I told you about is probably the ones that I've taken exposure histories from.

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Q I see.
And are there others outside of Libby that you considered in rendering your opinion in this case?
A Well, yeah, all the patients that I saw for Hanford and other asbestos places in the past, mostly prior to 2002, and there's probably 500 of those.
Q Okay. And where did you get those patients' information, the ones outside Libby?
A Oh, I took it myself.
Q Now, there's a database that's been referred to as the 550 database. Are you familiar with that?
A I am.
Q Other than the lost 550 database, how many of the patient histories have you considered both inside Libby or within Libby and outside Libby are still in your possession?
A Oh, the histories? All of them. They're all at the CARD Clinic. Is that what -- is that what you're referring to in those patients?
Q Well, I'm talking -- the CARD Clinic is -- does not contain the Libby individuals, does it?
A Yes, it does.
Q It does.
So you just told me you considered about a

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thousand individuals within Libby; is that correct?
A Or probably more, but I don't know -- you know, I've seen most of the patients in Libby at one time or another, but some of them I didn't need to take an exposure history from them. It was already well done. I didn't need to do it.
Q Of those individuals within Libby whose exposure history you considered, how many are still in your possession?
A They're in the possession of the CARD Clinic, every one of them. Every patient that I saw in my private practice and at the CARD Clinic's chart remains at Libby unless for some reason it got lost when I quit my practice in 2004.
Q And have you produced those in this action, sir?
A As far as I know, everything has been produced, yes.
Q And what about the patient histories for individuals outside Libby? How many -- you said you considered about 500 or so of those; is that correct?
A I have none of those charts. Those charts have undoubtedly been destroyed by now because there's a seven-year statute of limitations and they were in the possession of another pulmonary group

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that act as the -- sort of the safe keeper and distributor of them after I quit practice, so those probably do not exist any more because they just finished, I think, in the last couple of years cleaning out a lot of old charts.
Q Now, Dr. Whitehouse, how many of the individuals whose histories you reviewed claim that they were exposed to asbestos from sources other than Grace?
A You mean the ones in Libby?
Q All the individuals you reviewed.
A Well, the ones that I reviewed, you know, in my office previously, none of them had Grace exposures, those 500. The ones that I saw in Libby all had exposure in some form or another to Libby asbestos. They also -- some of them had exposure to other forms of asbestos in their employment.
Q How many of the individuals who had -- withdrawn.
What percentage of the individuals had exposure to sources other than Grace?
A I have no idea.
Q So is it correct that you did not attempt to quantify what share of the individuals in Libby had exposure to asbestos from sources other than Grace?

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A No, I don't have that now, although the database in Libby does have it.
Q I'm sorry. Can you say that again, please?
A The Libby database does have it and it now is nearly at a point where it can function.
Q But you don't know offhand what the percentage is?
A No.
Q Did you ever consider how many of the individuals that you -- whose histories you reviewed worked at blue collar jobs other than Grace?
A Yes.
Q And what percentage of individuals would that be?
A I don't know the exact percentage, but I know there were people that worked in the lumber mill which was blue collar jobs and had some exposure to asbestos as well.
Q What was -- not as an exact number, but what's your best sense of that number?
A Ah, geez. You know, I really don't know. Probably less than ten percent, but I don't know the number. The lawyers have that number.
Q Did you consider whether any of the individuals from Grace had worked at blue collar jobs

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other than Grace?
A Yes. That's what --
Q Is that the ten percent answer you gave me or is that a different number?
A No, that's that ten percent that I -- that's not very exact. There were people that worked outside of Libby around asbestos.
Q And do you know what percentage of individuals that was?
A No.
Q Did you ever consider whether any individuals whose history you reviewed worked in ship building?
A Yeah, there were some that did work in ship building and there were some in Libby that had worked in ship building. Some of them were in the Navy also.
Q How many would that be?
A I have no idea. You're asking me numbers that I haven't kept track of. Not a lot. Probably twenty, thirty at the most.
Q Did you consider how many of the individuals whose histories you reviewed had done work with brake linings?
A That question was asked and it was a very small insignificant number.

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(Ms. Rickards returns from recess.)
Q (By Mr. Svirsky) Did you do -- did you consider how many individuals had been exposed to brake linings in their homes fixing their own cars?
A No, I never asked that question.
Q Did you consider how many individuals were exposed to gaskets, either professionally or in doing personal repairs?
A Not specifically.
Q Is that a no or is there a portion that's not -- specifically that's a yes?
A I guess that's a no.
Q Did you ever consider how many of the individuals whose histories you reviewed were exposed to any form of insulated piping, either professionally in their work or in doing repairs at home or elsewhere?
A No, there's a fair number that were, but, again, I don't have a number on that.
Q Did you consider how many individuals worked with insulated piping not professionally, at home doing repairs?
A I don't think I asked that.
Q Did you consider how many people did welding

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professionally or otherwise?
A Yeah, we do have that in the database, yes.
Q Did you specifically consider how many individuals worked with welding rods in a non-professional setting?
A No, I don't have numbers of any of those things that you're asking me.
Q Well, I wasn't asking for a number, sir. I was asking whether you considered that.
A I don't remember whether we considered that or not. I think we just talked about welding.
Q Now, did you consider the effects of asbestos exposure as they're differentiated between men and women?
A No, we have not yet.
Q Did you ever breakdown --
MR. LEWIS: We couldn't hear that question. There was an interruption on the line or something. I'm sorry, Counsel.
Q (By Mr. Svirsky) Did you -- for the individuals whose histories you considered, Dr. Whitehouse, did you ever break it down into permanent residents of Libby versus temporary residents?
A Yeah, that's all been broken down.

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Q And was there any time frame you used for temporary residents?
A No, it was just recorded as to how long they lived there or whether they vacationed there or what the case may be.
Q Did you break out the effects for miners versus non-miners?
A Oh, yes.
Q Did you break out for smokers versus non-smokers?
A Yeah, we have that in the database too.
Q And for smokers, you broke it out by how much they smoked?
A Yes.
Q And do you know how many of the individuals in Libby were smokers?
A No. It's got the highest incidence of smoking quitting (sic) in the world, I think, since 2000. Almost every smoker quit.
Q Do you know how many were smokers before 2000?
A No, but it probably was like the general population of a blue collar area, and I think a large number of the miners smoked, most of them probably.
Q What is the ratio for the general population?

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A What do you mean? Of miners?
Q Yeah. You just said it's probably like the general population of blue collar workers.
What is the ratio of the general population for blue collar workers who were smokers before 2000?
A I don't know.
Q Do you know approximately?
A No.
Q You have no idea?
A No, I don't live in Libby to begin with, and, you know, I know some areas where there was blue collar workers, but I don't know what the total is, you know. It's a blue collar company town pretty much.
Q Do you have -- do you have any sense of what the general population of blue collar workers in the United States was that smoked before 2000?
A No.
Q Do you know what it was in Washington state?
A No.
Q Did you consider how many of the individuals from Libby whose histories you considered have alleged asbestos-related bodily injury claims against other defendants other than Grace?
A No, I do not. I only actually know of one,

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but there may be more.
Q I'm sorry. You said you know of one?
A That's the only -- I only know of one.
Q How did you learn about that one?
A It was a patient of mine.
Q So other than -- withdrawn.
So you just learned about it randomly from speaking to your patient?
A It was a patient I saw and he told me about it a long time ago, probably close to ten years ago, and I sent a bunch of stuff off to a lawyer somewhere, and I can't even remember where and that's the last I heard of it.
Q So other than randomly finding out that information from one of your patients, you did not specifically look for that information to consider; is that right?
A No, I think we did. I think we generally asked people about legal actions and things and there aren't very many people out there that do except for against Grace.
Q I'm sorry. When you said legal actions, what were you referring to, sir?
A I was referring to people at the CARD Clinic who had legal actions against other -- other

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companies other than W.R. Grace.
Q And you factored that into your analysis, sir?
A No.
Q No.
How did you quantify the impact of asbestos from sources other than Grace on the population in Libby that you reviewed for your report?
A In many respects, we actually haven't done so because it's not possible to do it. Most of the exposure that people had, they weren't even very familiar with how much exposure they had, and so the best we can estimate is whether it was a big exposure or a small exposure from what they tell us, and aside from that, it's not possible to factor it into anything.
Q Now, Dr. Whitehouse, you're aware that asbestos is naturally present in soil and rock and elsewhere in the environment, are you not?
A Yes.
Q And it's a fact that asbestos is naturally present in the area of Libby, Montana, is it not?
A No doubt.
Q Did you account for that presence of natural asbestos in Libby, Montana, in rendering your

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opinion?
A That's where it all came from. It came from the Libby -- or W.R. Grace's vermiculite mine. That's where all the asbestos in town came from.
Q Other than the asbestos in the mine, did you account for other ambient asbestos in Libby -- in the area of Libby, Montana?
A Not that we're aware of. I don't think there is any other.
Q Did you conduct any tests to determine whether there was any other asbestos or review any -- anybody else's tests in that regard?
A No, not really.
Q Are there activities that disturb asbestos that's naturally occurring to release it into the air?
A You mean in Libby?
Q Yes.
MR. LEWIS: Object as to the form of the question.
MR. SVIRSKY: I'll ask it again or differently.
Q (By Mr. Svirsky) Are there activities in general anywhere, Libby or elsewhere on the planet, that would disturb asbestos naturally occurring in

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the environment to release asbestos particles in the air?

A Sure, there are. There's lots of them.

Q What are some of those activities, Dr. Whitehouse?

A Oh, there's one around Sacramento, California. It's a district where they're building a lot of buildings. There's apparently a bunch of homes in southern California that have it used as fill in their homes, and there's other places, rock quarries in New Hampshire have asbestos. There's probably some asbestos in South Carolina in Grace's vermiculite mine. It's all over.

Q And what activities disturb -- cause the release of that asbestos to increase in the air?

A Well, the obvious is mining and digging it up, but aside from that, I don't know. I'm not an expert in that and I don't deal with that.

Q So is it fair to say that you did not account for any factors that might have released naturally occurring asbestos in the area of Libby into the air other than through mining activities?

A Oh, no. People went up to the mine and got vermiculite and they hauled it down in their pickups and put it in their backyard and their attics and

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their gardens and paved the school tracks, paved roads. They did all kinds of things with it, and that was outside of the mining itself.

Q Did you consider the release of asbestos other than what you just described as asbestos that was mined and then brought to the town and used?

A Well, you know, we knew that the lumber mill had some chrysotile in pipe insulation. That's the only other source of asbestos that we know of.

Q Did you account for that asbestos in your analysis?

A We haven't done analyses that would -- I'm not sure what you're talking about. Account for it in an analyses, tell me what you mean.

Q How did you factor in the asbestos in the lumber mills in to rendering your report?

A We don't. I haven't.

Q And how did you account for naturally occurring asbestos elsewhere in the area of Libby, Montana, other than what was mined and otherwise used in the town in rendering your report in this case, Dr. Whitehouse?

A We haven't. There isn't any.

Q I'm sorry. You said there isn't any. What do you mean there isn't any?

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A I don't think there's any other naturally occurring asbestos around except what's associated with the mine.

Q Well, perhaps I didn't hear you correctly over the phone. I thought you said you never conducted any tests to determine how much naturally occurring asbestos there was in Libby, Montana, other than in the mine.

A I don't -- I don't know that you understand. I'm a practicing chest physician, not an analytic chemist or anything like that. I don't do that kind of testing.

Q Well, that's fine, sir. I just want to -- I just want to have a record of what you did and didn't do.

And just so we have it clear, you did not conduct any test to determine what naturally occurring asbestos there was in Libby, Montana, other than what was in the mine, right?

A That's correct.

Q And you didn't review any materials that anybody else had prepared to determine how much naturally occurring asbestos there was in the area of Libby, Montana, other than what was the mine, correct?

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A Well, the EPA has done extensive tests, and if you need to look at that in detail, you can ask the EPA for the data which is public data.

Q Dr. Whitehouse, my question was whether you reviewed any materials that measured naturally occurring asbestos in the area of Libby, Montana.

A No, I have not.

Q Now, who determined what documents or other materials you reviewed to prepare your expert report in this case?

A Oh, this is a compilation of articles and research and medical stuff that goes back ten years. Large amounts of stuff that I've collected, literature, particularly large volumes of literature.

Q My question was: Dr. Whitehouse, who determined what you reviewed?

A I determine what I review.

Q So that was solely in your own discretion; is that right?

A Well, I get things through the clinic sometimes. You know, a fellow that I work with in the clinic gets articles occasionally, and he has PubMed, and occasionally we look up things there, so there's just a variety, but that's where it comes from.

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Q Did the attorneys who retained you to render a report here direct you to any materials to review in connection with your report?

A Yeah, they've given me materials also.

Q What materials did they give you?

A Mostly it's published articles that they run across for some reason or another.

Q Anything else?

A Not really. The stuff that they have used an accountant to put together is all stuff that I developed.

Q Now, did you turn over in this case all the documents that you reviewed or relied upon in rendering your report by March 16, 2009?

A I believe I did. The lawyers were responsible for some of those reports getting sent too, so I turned over everything I was supposed to.

Q To whom did you turn everything over to?

A Well, John Heberling who's the attorney at Kalispell that is doing a lot of this work is -- he's the one that has the various documents and that gets turned over, things that I've developed and things that -- I've written also about things in the literature that I've had. It's just -- all of it goes through him to be delivered to W.R. Grace.

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Q So just to be clear, by March 16 of 2009, it's your testimony that you have produced to Mr. Heberling or his associates or partners everything that you reviewed or relied upon in rendering your report in this case; is that right?

A Yes, and I have produced everything that anybody has asked me to produce.

Q But you don't know whether Mr. Heberling produced by that date to all the parties to this litigation; is that right?

A I have no idea.

Q Now, in paragraph two of your expert report, you mention 1,800 active cases. I assume you have a copy of your report somewhere?

A I do.

Q Do you see that reference to 1,800 active cases?

A Yes.

Q Have you turned over all the medical records in connection with those 1,800 cases?

A I haven't personally and I have no idea whether they've been turned over at this point or not. I don't think all 1,800 have.

Q How many have been turned over?

A Well, I know all the claimants' records have been turned over and a significant number of my records that are not claimants, but I don't know how many actually totally have been turned over.

Q But not all of the 1,800 have been turned over in production; is that right, sir?

A I don't really know for sure. I understand there may not be, but that's not my responsibility.

Q I'm not blaming or accusing you, Dr. Whitehouse. I just want to get the record on this.

A Well, that's the best answer I can give you. I'm sorry.

Q Since May 27, 2009, have you produced to Mr. Heberling or any of the lawyers he works with any additional medical records or documents for production in this case?

A Well, we brought here what's called a final key which is the names of all the Libby claimants with a number that corresponds, I think, to a numbering of charts that they already have, and also in there indicates just their birth date and there's initials for people that do not have attorneys or are not claimants in this case, and those records have been redacted and sent over, I would think too, and there's a total of 1,030 in this list.

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MR. LEWIS: That's Exhibit-3 to this deposition for the record.

Q (By Mr. Svirsky) Now, in addition to Exhibit-3 to this deposition, have you produced any documents after May 27, 2009, for production in this litigation?

A I don't believe so. I'm not sure. I don't think so.

Q Okay. Now, other than the -- some of the files in connection with the 1,800 active cases in paragraph two of your report, are there any other documents that you reviewed or relied upon in rendering your opinions that have not been produced in this litigation?

A Well, I have a bibliography of about 1,000 literature articles that I've read, multiple textbooks.

Q Leaving aside the list of materials in your bibliography, are there any other materials or documents that you relied upon in rendering your opinions?

A I don't think so. I think it's all been produced.

Q Other than what you described about the 1,800 active cases in paragraph two, right?

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A Yeah, and I don't know what the status of all that is.

Q Now, in connection with the so-called 550 database, was any of the data that was lost there kept in any other source?

A No, the data actually is all -- the feds have all the data. They were given it, the Department of Justice for the criminal trial. Unfortunately, the names were all redacted and so there's -- there's not really any clear way to identify it except by date of birth and it can probably be identified that way. Those are mostly non-claimants, and so there were a lot of charts that were given to the government or given to Grace a long time ago, four, five years ago that were all redacted except that I understand for the date of birth, and so it's all retrievable because I have a list of the names of the people now, but I don't have any charts that go with them, so it's possible to recreate that, although it'd take some work to do it.

Q I'm sorry. You said it is possible to recreate that -- that data?

A Well, possibly except that unfortunately, you're not going to get the names because of HIPAA laws. These were mostly my patients and not CARD

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patients. I mean, some of them. Some of them certainly are CARD patients, and I don't know what the breakdown is.

Q And what would you look to to recreate that data? What information would you look to?

A You'd have to have all the charts there with all the date of births, if they're still intact on the charts, and then I'd have to review them, and I guess we can tell you which ones have lawsuits and which ones don't.

You wouldn't be able to get any further information in the ones that don't have lawsuits. The data on -- you know, the data is basically junk because I stopped keeping it. It was kept sort of erratically after I closed my practice, and so it's not very accurate.

Everybody's interested in that. I'm not sure why.

Q Do you still have the charts and the background data that you described from which you could recreate the 550 database?

A I do not. I was provided with a chart of the names which came from the CARD Clinic because they kept a list of who they sent to Grace in 2005 or so, and I don't have -- I have nothing left on my

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computer with that. I had a computer crash and lost it, and I didn't -- unfortunately, I did not have it backed up.

I suspect I didn't back it up because I knew that the CARD had it and that the Department of Justice had it and I didn't worry about it because I wasn't using it, so I didn't -- we didn't track it down at that time. It wasn't worth doing.

Q So the CARD Clinic has the background information that one would need to recreate the 550 database?

A They might be able to. They can't do it without me.

Q Have you tried to recreate the 550 database by looking at the CARD Clinic information?

A No.

Q Now, Dr. Whitehouse, how much have you been paid in connection with your expert opinion and testimony in this matter?

A What, today or when?

Q In total.

A I already told Mr. Bernick -- or was it Mr. Finch, I guess -- that probably over a long period of time, over $100,000.

Q And on what basis were you compensated? Was

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it hourly or piecemeal or another way?

A Hourly.

Q And how many hours -- what was your hourly compensation rate?

A Right now it's 350 for depositions and 300 for reviewing records, but probably at the beginning of this was like -- you know, this all began about twelve or fourteen years ago, so it was probably considerably less then.

Q So how many hours would you say you've spent on this case?

A On this case or the bankruptcy or everything else?

Q Yeah, the bankruptcy now. Let me rephrase that.

How many hours did you spend to prepare the report that was submitted in this case?

A You know, really, I don't know because the report has been done piecemeal. It keeps getting changed periodically when new data becomes available, and then parts of the old -- some of the parts of this report go back probably four or five years and other parts are new.

MR. LEWIS: Counsel, we've been going for over seven hours and I think that's the cutoff

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point. How much more do you have?
MR. SVIRSKY: I'm just about done here.
MR. LEWIS: Okay. Let's speed it up then, please.
Q (By Mr. Svirsky) All right. Did you submit billing statements for your work here to get compensated?
MR. LEWIS: Objection. Counsel, you're talking about here. This doctor has testified at a federal criminal trial. He's participated in the workup on that.
MR. SVIRSKY: Well, let me just correct that, so it's clear.
MR. LEWIS: Yeah.
Q (By Mr. Svirsky) Did you submit billing statements in general for any work you did in connection with Libby claimants and bankruptcy or the criminal trial or elsewhere so that you could get paid for your services?
A Yeah, I have. Every month, I keep it up to date.
Q Have those billing statements been produced in discovery in this case?
A No.
Q Have you received any compensation from any

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individual claimant?
A No.
Q Who pays you?
A Attorneys.
Q Mr. Heberling?
A Mr. Heberling, the Department of Justice. There will be a bill that goes to the Grace attorneys for today.
Q Are you still -- are you treating any of the Libby claimants now?
A Yeah, I still go up there once a month.
Q How many Libby claimants are your patients now?
A Well, I really don't know because we're -- we're -- you know, I see a lot of them once a year, and I probably see ten to fifteen once a month when I'm up there, so I probably see 150, 200 a year. I don't know the exact number though.
MR. SVIRSKY: Thank you for your -- for staying behind to answer my questions, Dr. Whitehouse. I don't have anything else.
THE WITNESS: Okay.
MS. DeCRISTOFARO: Mr. Lewis, this is Elizabeth DeCristofaro. I have just two questions quickly.

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MR. LEWIS: There's no problem with that, ma'am.
EXAMINATION
BY MS. DeCRISTOFARO:
Q Okay. Dr. Whitehouse, my name is Elizabeth DeCristofaro. I just wanted to know -- following up on the questions you were just asked -- have you testified on behalf of a Libby claimant since April 2001?
A How did I what?
MR. LONGOSZ: Have you.
Q (By Ms. DeCristofaro) Have you testified?
MR. LEWIS: Since April 2001?
MS. DeCRISTOFARO: Yes.
A Oh, yes, since before that.
Q (By Ms. DeCristofaro) Well, no, since that time.
A Oh, yeah, I have.
Q And in what cases have you testified on behalf of a Libby claimant?
A Well, I testified in several occupational medicine cases. They are actually in the expert report, a list of what I've testified to, so if you have a copy of that, it'll give you the -- give you a list of what I've testified to, and there has not

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been a lot since 2001. It's about four occupational medicine cases and no trials and then the criminal trial.
Q Have you prepared any report with respect to any of the Libby claimants since 2001?
A Oh, yeah, it's a huge report.
Q Okay. Let me clarify. I mean on behalf of an individual claimant --
A No.
Q -- for a specific claim.
A No.
MS. DeCRISTOFARO: Those are my only questions. Thank you very much.
THE WITNESS: Okay.
MR. LEWIS: Anyone else?
THE VIDEOGRAPHER: We are going off the record. The time is now 5:01 p.m. This is the end of disk number four and, herein, ends the deposition for today.
(Signature reserved.)
(Deposition concluded at 5:01 p.m.)

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S-I-G-N-A-T-U-R-E

I declare under penalty of perjury under the laws of the State of Washington that I have read my within deposition, and the same is true and accurate, save and except for changes and/or corrections, if any, as indicated by me on the CHANGE SHEET flyleaf page hereof. Signed in.....WA on the.....day of....., 2009.

.....
ALAN C. WHITEHOUSE, M.D.
June 16, 2009

cmz

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STATE OF WASHINGTON) I, CATHY M. ZAK,
) ss CCR# 1922 a duly
County of King) authorized Notary
Public in and for the
State of Washington
residing at Bellevue,
do hereby certify:

That the foregoing deposition of ALAN C. WHITEHOUSE, M.D., was taken before me and completed on June 16, 2009, and thereafter was transcribed under my direction; that the deposition is a full, true and complete transcript of the testimony of said witness, including all questions, answers, objections, motions and exceptions;

That the witness, before examination, was by me duly sworn to testify the truth, the whole truth, and nothing but the truth, and that the witness reserved the right of signature;

That I am not a relative, employee, attorney or counsel of any party to this action or relative or employee of any such attorney or counsel and that I am not financially interested in the said action or the outcome thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal on June 22, 2009.

Cathy M. Zak, CCR
Notary Public in and for the State
of Washington, residing at Bellevue.